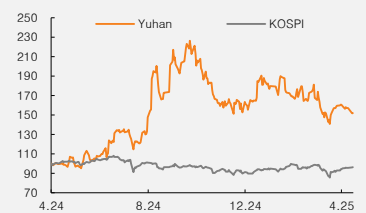


(Maintain)	<b>Buy</b>
Target price	▼ <b>W160,000</b>
Current price (5/8/25)	W109,800
Upside	45.7%

OP (25F, Wbn)	110
Consensus OP (25F, Wbn)	118
EPS growth (25F, %)	192.1
Market EPS growth (25F, %)	25.6
P/E (25F, x)	43.3
Market P/E (25F, x)	9.3
KOSPI	2,579.48

Market cap (Wbn)	8,807
Shares (mn)	80
Free float (%)	68.7
Foreign ownership (%)	18.2
Beta (12M)	1.19
52-week low (W)	68,800
52-week high (W)	163,700

(%)	1M	6M	12M
Absolute	4.6	-17.1	51.4
Relative	-5.4	-17.7	61.2



Mirae Asset Securities Co., Ltd.

**Seung-min Kim**  
sm.kim.a@miraeasset.com

**Se-eun Jo**  
seeun.jo@miraeasset.com

# Yuhan

## Earnings miss due to absence of milestone income, but API growth stands out

### Lower TP to W160,000 (from W165,000); maintain Buy

Our valuation of Yuhan reflects an operating value of W10.4tr and a pipeline value of W576.3bn (vs. W1tr previously). We derived our operating value estimate by applying an EV/EBITDA of 27x to the present value of 2028F EBITDA (W380bn; 8.5% discount rate). This multiple reflects the strong outlook for lazertinib and is in line with the multiples applied to domestic peers with commercialized drugs in the US (e.g., SK Biopharmaceuticals and Celltrion). Meanwhile, pipeline value now only reflects our rNPV-based valuation of the IgE inhibitor YH35324 (urticaria treatment); we excluded the value of the GLP-1/FGF21 agonist BI3006337 (MASH treatment), as Boehringer Ingelheim discontinued development and returned the rights to Yuhan.

### 1Q25 review: Absence of milestone income leads to earnings miss

For 1Q25, Yuhan reported consolidated revenue of W491.6bn (+11% YoY; 5% below the consensus and 6% below our estimate) and operating profit of W6.4bn (+1,012% YoY; 70% below the consensus and 77% below our estimate).

Revenue grew solidly in the pharmaceuticals (+6.5% YoY) and household/healthcare (+5.1% YoY) divisions. Notably, overseas revenue expanded 18% YoY on strong API exports by Yuhan Chemical. However, licensing income (milestones and royalties) amounted to only W4bn, well below our forecast (W48bn). We had expected Yuhan to book a US\$35mn (approximately W42bn) milestone tied to the European launch of lazertinib in 1Q25, but this did not materialize. Excluding this factor, 1Q25 results were generally in line, and overseas API growth was even stronger than anticipated.

### 2025 outlook

For 2025, we look for consolidated revenue of W2.21tr (+7% YoY) and operating profit of W110.1bn (+101% YoY). Our estimates remain unchanged, as we expect the milestone related to the European launch of lazertinib to be recognized in 3Q25. We also expect the pharmaceuticals and household/healthcare divisions to continue steady growth (around +4% YoY each), and the overseas API division should post robust growth (+20% YoY) on increased lenacapavir API exports to Gilead. With API exports likely to be concentrated in 2Q25 and 3Q25, we expect quarterly earnings growth to continue through 3Q25. Notably, lenacapavir's pre-exposure prophylaxis (PrEP) application is pending FDA approval (PDUFA date: Jun. 19).

For 2025, we estimate lazertinib royalty income at US\$26mn. For reference, Genmab—the original developer of amivantamab—recognized US\$16mn in royalty income in 2024, and the current FactSet consensus for its 2025 royalty income stands at US\$51mn, suggesting that our estimate for lazertinib is achievable.

(Dec.)	2023	2024	2025F	2026F	2027F
Revenue (Wbn)	1,859	2,068	2,215	2,380	2,722
OP (Wbn)	57	55	110	164	305
OP margin (%)	3.1	2.7	5.0	6.9	11.2
NP (Wbn)	136	71	206	290	453
EPS (W)	1,673	869	2,537	3,564	5,562
ROE (%)	6.7	3.4	9.4	12.1	16.6
P/E (x)	41.1	137.6	43.3	30.8	19.7
P/B (x)	2.5	4.2	3.6	3.3	2.8
Dividend yield (%)	0.6	0.4	0.5	0.5	0.5

Notes: Under consolidated K-IFRS; NP is attributable to owners of the parent  
Source: Company data, Mirae Asset Securities Research estimates

Table 1. Valuation table

(Wbn, x)

	Value	Notes
PV of 2028F EBITDA	387	2028F EBITDA: W526.6bn (WACC: 8.5%)
Target EV/EBITDA	27	In line with the multiples applied to domestic pharmas with commercialized drugs in the US (e.g., SK Biopharmaceuticals and Celtrion)
Operating value	10,439	
Net cash	130	
Pipeline value	576	
YH35324 (IgE inhibitor; urticaria treatment)	576	Assumptions: US launch in 2028; share of US urticaria treatment market to peak at 30% seven years after launch; US price = US\$41,000; Europe revenue = 30% of US revenue; revenue to be equally split with GI Innovation; 15% probability of success in phase 1 trial; 10% discount rate; -20% terminal growth rate
Value of non-consolidated affiliate stakes	584	Based on book value
Fair value	11,729	
No. of shares ('000)	73,790	
Fair value per share (W)	159,578	TP: W160,000
Current price (W)	109,800	
Upside	45.7%	

Source: Mirae Asset Securities Research

Table 2. Peer valuation table: Top domestic pharmas

Company	Market cap (Wtr)	Revenue (Wbn)		OP (Wbn)		OP margin (%)		NP (Wbn)		ROE (%)		P/E (x)		P/B (x)		EV/EBITDA (x)		P/S (x)	
		FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2
Yuhan	8.6	2,268	2,459	123	210	5.4	8.5	141	207	6.8	9.4	63.6	42.6	4.3	4.0	48.6	32.4	4.1	3.8
Hanmi	3.1	1,624	1,745	239	265	14.7	15.2	170	195	12.8	13.1	20.2	17.6	2.6	2.3	9.9	8.7	1.9	1.8
Daewoong	1.5	1,470	1,587	176	199	11.9	12.6	127	148	14.3	14.4	11.9	10.3	1.7	1.5	9.2	7.9	1.1	1.0
GC Biopharma	1.4	1,842	2,003	70	98	3.8	4.9	29	55	2.1	3.9	56.8	29.2	1.2	1.2	15.1	13.0	0.8	0.7
HK inno.N	1.2	1,018	1,088	104	122	10.2	11.2	71	86	5.6	6.5	17.3	14.1	1.0	0.9	9.5	8.1	1.2	1.1
CKD	1.1	1,681	1,761	91	101	5.4	5.7	76	89	8.0	8.6	14.3	12.3	1.1	1.1	6.9	6.1	0.7	0.6
Dong-A ST	0.4	714	752	35	44	4.9	5.8	22	29	3.5	4.5	20.0	15.1	0.7	0.7	12.2	10.2	0.6	0.6
Avg.	2.5					8.1	9.1			7.6	8.6	29.2	20.2	1.8	1.7	15.9	12.4	1.5	1.4

Note: As of May 8

Source: FactSet, Mirae Asset Securities Research

Table 3. 1Q25 review

(Wbn, %, %p)

	1Q24	4Q24	1Q25P			Growth	
			Preliminary	Consensus	Diff.	YoY	QoQ
Revenue	445	496	492	516	-4.7	10.6	-0.9
GP	135	147	149			10.5	1.3
Gross margin	30.3	29.6	30.2			0.0	0.7
OP	135	-12	6	21	-69.9	1,012.4	TTB
OP margin	30.3	29.6	1.3	4.1	-2.8	1.2	3.7
NP	11	-23	10	30	-66.2	-7.4	TTB

Source: QuantiWise, Mirae Asset Securities Research

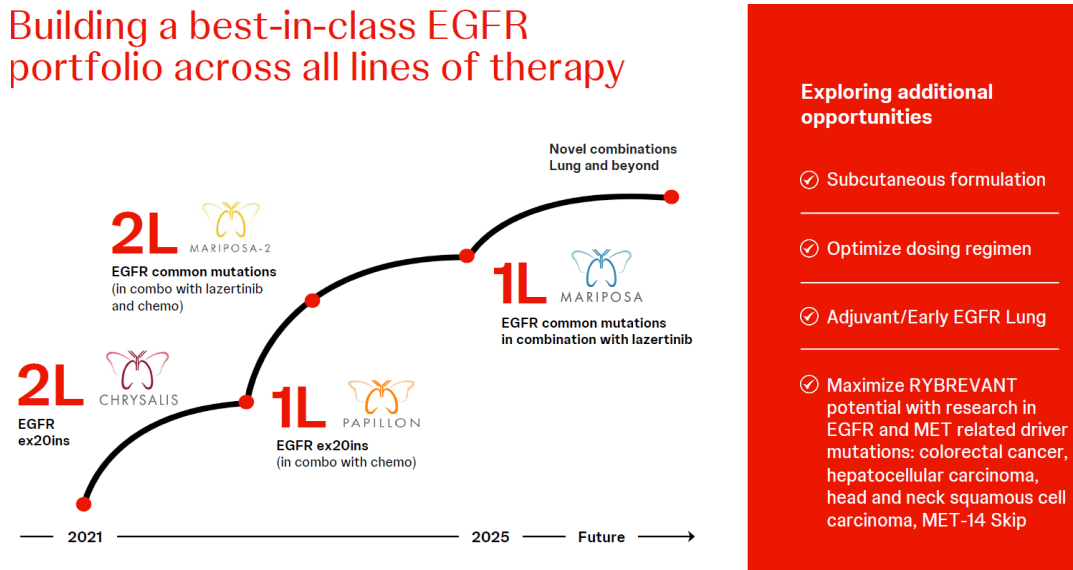
Table 4. Annual earnings and forecasts

(Wbn, %)

	1Q24	2Q24	3Q24	4Q24	1Q25P	2Q25F	3Q25F	4Q25F	2024	2025F	2026F	2027F
Revenue	444.6	528.3	598.8	496.1	491.6	589.6	610.1	523.7	2,067.8	2,214.9	2,361.6	2,700.5
YoY	0.3	6.6	24	13.5	10.6	11.6	1.9	5.6	11.2	7.1	6.6	14.4
Parent	433.1	514.6	585.2	475.4	469.4	569.1	589.7	502.8	2,008.4	2,130.9	2,271.7	2,604.3
YoY	0.4	6.8	24.8	11.4	8.4	10.6	0.8	5.8	11	6.1	6.6	14.6
Pharmaceuticals	309.5	339.1	347.8	351.4	329.8	342.9	360.2	365	1,347.8	1,397.9	1,439.8	1,483
YoY	0	-4.5	0.5	6.1	6.5	1.1	3.5	3.9	0.4	3.7	3	3
Household/healthcare	44.5	75.2	67.4	53.5	46.7	77.3	70.8	55.8	240.6	250.7	268.2	287
YoY	24.2	24.5	13.3	-10.1	5.1	2.8	5	4.3	11.8	4.2	7	7
Overseas APIs	74.1	97.2	70.1	65.1	87.4	116.6	101.6	61.9	306.5	367.4	404.2	464.8
YoY	-3.3	32.9	19.6	98.4	17.9	20	45	-5	27.1	19.9	10	15
Licensing	2.5	0.6	98.7	4	4	29.5	55.5	18.5	105.8	107.5	152	362.1
YoY	-64.4	-59.8	19602.6	81	56	5215.3	-43.8	366.8	841.5	1.6	41.4	138.2
Other	2.5	2.6	1.7	1.4	1.6	2.7	1.6	1.6	8.2	7.4	7.4	7.4
YoY	4.3	42.6	-59.7	76.1	-38.2	5.2	-4.1	9.8	-10.4	-9.2	0	0
Consolidation adj.	11.4	13.7	13.6	20.7	22.2	20.5	20.4	20.9	59.4	84	89.9	96.2
YoY	-1.3	0.3	-3.9	97.2	93.5	50	50	1	19.1	41.3	7	7
GP	134.5	167.4	240.8	146.7	148.7	206.5	224.6	170.1	689.4	749.9	836.6	1,098.2
YoY	-0.8	9.5	66.7	10.3	10.5	23.4	-6.7	15.9	21.8	8.8	11.6	31.3
Gross margin	30.3	31.7	40.2	29.6	30.2	35	36.8	32.5	33.3	33.9	35.4	40.7
OP	0.6	18.5	47.6	-11.8	6.4	38.9	42.6	22.2	54.9	110.1	163.1	304.6
YoY	-97.4	-32.1	5286.7	-289.9	1012.4	109.6	-10.4	-287.9	-3.8	100.6	48.1	86.8
OP margin	0.1	3.5	7.9	-2.4	1.3	6.6	7	4.2	2.7	5	6.9	11.3
EBITDA	15.5	34.7	63	4.7	21.9	55.6	58.6	39.3	117.9	175.4	229.7	372.6
YoY	-53.4	-9.2	427.8	-73.9	41.1	60.2	-7	738.9	16.2	48.8	30.9	62.2
EBITDA margin	3.5	6.6	10.5	0.9	4.5	9.4	9.6	7.5	5.7	7.9	9.7	13.8
NP	10.8	31.9	35.5	-23.1	10	47.2	37	66.9	55.2	161.1	225.8	343.3
YoY	-51.5	271.2	86.9	-127.4	-7.1	47.8	4.2	-389.4	-58.9	192.1	40.2	52
Net margin	2.4	6	5.9	-4.7	2	8	6.1	12.8	2.7	7.3	9.6	12.7

Source: Company data, Mirae Asset Securities Research

**Figure 1. Johnson & Johnson’s road map for penetration of the EGFR-mutated NSCLC treatment market**



Source: Johnson & Johnson, Mirae Asset Securities Research

**Figure 2. In the EGFR-mutated NSCLC market, Johnson & Johnson aims for 50% M/S (first line) and annual revenue of US\$5bn+**

Our evidence <sup>1</sup>	Our execution	Our ambition
<ul style="list-style-type: none"> <li>✔ <b>Significantly extends PFS</b> <ul style="list-style-type: none"> <li>• 30% reduction in risk of progression or death compared with osimertinib</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>📊 <b>26-month avg time to peak share for 1L therapies<sup>2</sup></b></li> </ul>	<p style="font-size: 2em; color: red;">~50%</p> <p><b>1L pts on RYBREVANT &amp; lazertinib</b></p>
<ul style="list-style-type: none"> <li>✔ <b>Targeted</b> <ul style="list-style-type: none"> <li>• Addresses EGFR &amp; MET alterations upfront</li> <li>• Preserves chemotherapy to second line where resistance becomes complicated</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>📅 <b>2025 subcutaneous formulation</b></li> </ul>	<p style="font-size: 2em; color: red;">\$5B+</p> <p><b>lung portfolio<sup>3</sup></b></p>
<ul style="list-style-type: none"> <li>✔ <b>Durable responses</b> <ul style="list-style-type: none"> <li>• Longest median duration of response in 1L common EGFR NSCLC</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>🏛️ <b>Treatment experience evidence at launch</b></li> </ul>	<p>....Transforming outcomes for more than 320,000<sup>4</sup> patients with EGFR+ NSCLC globally</p>

**J&J** 1. Cho BC, et al. Amivantamab Plus Lazertinib vs Osimertinib as First-line Treatment in Patients With EGFR-mutated, Advanced Non-small Cell Lung Cancer (NSCLC): Primary Results From MARIPOSA, a Phase 3, Global, Randomized, Controlled Trial. Abstract presented at the European Society for Medical Oncology 2023 Meeting, October 20-24, Madrid, Spain; 2. Intrinsic Data Access August 2020; 3. Non-risk adjusted peak year operational sales, including partner sales; 4. US, EU, G5 Global Cerner Enviza

Source: Johnson & Johnson, Mirae Asset Securities Research

## Yuhan (000100 KS)

## Income statement (summarized)

(Wbn)	2024	2025F	2026F	2027F
<b>Revenue</b>	<b>2,068</b>	<b>2,215</b>	<b>2,380</b>	<b>2,722</b>
<b>Cost of revenue</b>	<b>1,378</b>	<b>1,465</b>	<b>1,538</b>	<b>1,617</b>
<b>GP</b>	<b>690</b>	<b>750</b>	<b>842</b>	<b>1,105</b>
<b>SG&amp;A expenses</b>	<b>635</b>	<b>640</b>	<b>679</b>	<b>800</b>
<b>OP (adj.)</b>	<b>55</b>	<b>110</b>	<b>164</b>	<b>305</b>
<b>OP</b>	<b>55</b>	<b>110</b>	<b>164</b>	<b>305</b>
<b>Non-operating profit</b>	<b>6</b>	<b>60</b>	<b>75</b>	<b>74</b>
Net financial income	-6	-6	-2	1
Net income from associates	47	53	52	51
Pretax profit	61	170	239	379
Income tax	6	9	12	26
Profit from continuing operations	55	161	226	353
Profit from discontinued operations	0	0	0	0
<b>NP</b>	<b>55</b>	<b>161</b>	<b>226</b>	<b>353</b>
Attributable to owners	71	206	290	453
Attributable to minority interests	-16	-45	-64	-99
<b>Total comprehensive income</b>	<b>54</b>	<b>161</b>	<b>226</b>	<b>353</b>
Attributable to owners	70	209	293	458
Attributable to minority interests	-16	-48	-67	-105
EBITDA	118	175	230	372
FCF	-62	181	236	313
EBITDA margin (%)	5.7	7.9	9.7	13.7
OP margin (%)	2.7	5.0	6.9	11.2
Net margin (%)	3.4	9.3	12.2	16.6

## Balance sheet (summarized)

(Wbn)	2024	2025F	2026F	2027F
<b>Current assets</b>	<b>1,360</b>	<b>1,483</b>	<b>1,658</b>	<b>1,857</b>
Cash & equivalents	306	356	448	475
AR & other receivables	626	670	719	823
Inventory	343	368	395	452
Other current assets	85	89	96	107
<b>Non-current assets</b>	<b>1,582</b>	<b>1,575</b>	<b>1,597</b>	<b>1,761</b>
Investments in associates	457	489	526	601
PP&E	598	549	503	457
Intangible assets	285	295	326	461
<b>Total assets</b>	<b>2,942</b>	<b>3,058</b>	<b>3,255</b>	<b>3,619</b>
<b>Current liabilities</b>	<b>619</b>	<b>609</b>	<b>614</b>	<b>657</b>
AP & other payables	262	280	301	344
Short-term financial liabilities	187	146	116	88
Other current liabilities	170	183	197	225
<b>Non-current liabilities</b>	<b>172</b>	<b>175</b>	<b>177</b>	<b>183</b>
Long-term financial liabilities	140	140	140	140
Other non-current liabilities	32	35	37	43
<b>Total liabilities</b>	<b>791</b>	<b>784</b>	<b>791</b>	<b>840</b>
<b>Equity attributable to owners</b>	<b>2,101</b>	<b>2,269</b>	<b>2,522</b>	<b>2,937</b>
Capital stock	81	81	81	81
Capital surplus	123	123	123	123
Retained earnings	2,010	2,179	2,432	2,847
<b>Minority interests</b>	<b>50</b>	<b>5</b>	<b>-59</b>	<b>-158</b>
<b>Shareholders' equity</b>	<b>2,151</b>	<b>2,274</b>	<b>2,463</b>	<b>2,779</b>

## Cash flow statement (summarized)

(Wbn)	2024	2025F	2026F	2027F
<b>Operating cash flow</b>	<b>55</b>	<b>178</b>	<b>237</b>	<b>316</b>
NP	55	161	226	353
Non-cash income/expenses	101	17	17	27
Depreciation	45	47	48	48
Amortization	18	19	19	19
Other	38	-49	-50	-40
Chg. in working capital	-124	-39	-45	-93
Chg. in AR & other receivables	-48	-43	-49	-101
Chg. in inventory	-59	-24	-27	-57
Chg. in AP & other payables	-4	13	14	29
Income tax	-27	-9	-12	-26
<b>Cash flow from investing activities</b>	<b>-117</b>	<b>-24</b>	<b>-48</b>	<b>-153</b>
Chg. in PP&E	-113	3	-2	-2
Chg. in intangible assets	-17	-29	-50	-153
Chg. in financial assets	-1	-1	-1	-2
Other	14	3	5	4
<b>Cash flow from financing activities</b>	<b>66</b>	<b>-78</b>	<b>-67</b>	<b>-66</b>
Chg. in financial liabilities	57	-41	-29	-29
Chg. in equity	12	0	0	0
Dividends	-32	-37	-37	-37
Other	29	0	-1	0
<b>Chg. in cash</b>	<b>7</b>	<b>49</b>	<b>92</b>	<b>27</b>
Beginning balance	299	306	356	448
Ending balance	306	356	448	475

Source: Company data, Mirae Asset Securities Research estimates

## Key valuation metrics/ratios

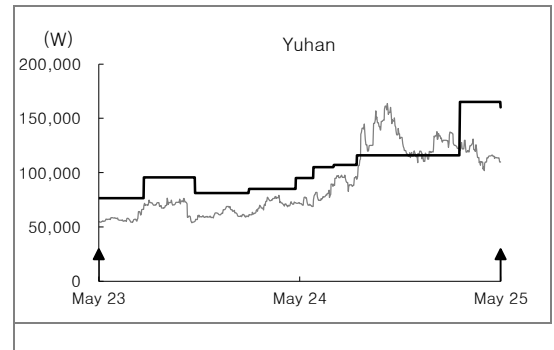
	2024	2025F	2026F	2027F
P/E (x)	137.6	43.3	30.8	19.7
P/CF (x)	62.2	50.2	36.7	23.5
P/B (x)	4.2	3.6	3.3	2.8
EV/EBITDA (x)	82.8	50.3	37.5	22.8
EPS (W)	869	2,537	3,564	5,562
CFPS (W)	1,920	2,186	2,992	4,671
BPS (W)	28,505	30,581	33,685	38,786
DPS (W)	500	500	500	500
Dividend payout ratio (%)	66.9	22.9	16.3	10.4
Dividend yield (%)	0.4	0.5	0.5	0.5
Revenue growth (%)	11.2	7.1	7.5	14.4
EBITDA growth (%)	16.2	48.8	31.3	61.6
OP growth (%)	-3.8	100.6	48.6	86.6
EPS growth (%)	-48.1	192.1	40.5	56.1
AR turnover (x)	3.5	3.5	3.5	3.6
Inventory turnover (x)	6.6	6.2	6.2	6.4
AP turnover (x)	7.8	8.0	7.8	7.4
ROA (%)	1.9	5.4	7.2	10.3
ROE (%)	3.4	9.4	12.1	16.6
ROIC (%)	3.3	6.6	9.7	16.6
Debt-to-equity ratio (%)	36.8	34.5	32.1	30.2
Current ratio (%)	219.7	243.4	269.9	282.7
Net debt-to-equity ratio (%)	0.3	-4.2	-8.9	-10.0
Interest coverage ratio (x)	3.7	7.3	12.2	25.5

# Appendix 1

## Important disclosures and disclaimers

### Two-year rating and TP history

Company	Date	Rating	TP (W)
Yuhan (000100)	05/09/25	Buy	160,000
	02/24/25	Buy	165,000
	08/21/24	Buy	116,000
	07/10/24	Buy	107,000
	06/03/24	Buy	105,000
	05/02/24	Buy	95,000
	02/07/24	Buy	85,000
	11/01/23	Buy	81,352
	07/31/23	Buy	95,708
	04/27/23	Buy	76,567



### Stock ratings

Buy	Expected 12-month performance: +20% or greater
Trading Buy	Expected 12-month performance: +10% to +20%
Hold	Expected 12-month performance: -10% to +10%
Sell	Expected 12-month performance: -10% or worse

### Sector ratings

Overweight	Expected to outperform the market over 12 months
Neutral	Expected to perform in line with the market over 12 months
Underweight	Expected to underperform the market over 12 months

Rating and TP history: Share price (—), TP (—), Not Rated (■), Buy (▲), Trading Buy (■), Hold (●), Sell (◆)

\* Our investment rating is a guide to the expected return of the stock over the next 12 months.

\* Outside of the official ratings of Mirae Asset Securities Co., Ltd., analysts may call trading opportunities should technical or short-term material developments arise.

\* The TP was determined by the research analyst through valuation methods discussed in this report, in part based on estimates of future earnings.

\* TP achievement may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

### Ratings distribution and investment banking services

	Buy	Trading Buy	Hold	Sell
Ratings distribution	83.98%	6.63%	8.84%	0.55%
Investment banking services	88.24%	0%	11.76%	0%

\* Based on recommendations in the last 12-months (as of March 31, 2025)

### Disclosures

As of the publication date, Mirae Asset Securities Co., Ltd. and/or its affiliates do not have any special interest with the subject company and do not own 1% or more of the subject company's shares outstanding.

### Analyst certification

The research analysts who prepared this report (the "Analysts") are registered with the Korea Financial Investment Association and are subject to Korean securities regulations. They are neither registered as research analysts in any other jurisdiction nor subject to the laws or regulations thereof. Each Analyst responsible for the preparation of this report certifies that (i) all views expressed in this report accurately reflect the personal views of the Analyst about any and all of the issuers and securities named in this report and (ii) no part of the compensation of the Analyst was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report. Mirae Asset Securities Co., Ltd. ("Mirae Asset Securities") policy prohibits its Analysts and members of their households from owning securities of any company in the Analyst's area of coverage, and the Analysts do not serve as an officer, director, or advisory board member of the subject companies. Except as otherwise specified herein, the Analysts have not received any compensation or any other benefits from the subject companies in the past 12 months and have not been promised the same in connection with this report. Like all employees of Mirae Asset Securities, the Analysts receive compensation that is determined by overall firm profitability, which includes revenues from, among other business units, the institutional equities, investment banking, proprietary trading, and private client divisions. At the time of publication of this report, the Analysts do not know or have reason to know of any actual, material conflict of interest of the Analyst or Mirae Asset Securities except as otherwise stated herein.

### Disclaimers

This report was prepared by Mirae Asset Securities, a broker-dealer registered in the Republic of Korea and a member of the Korea Exchange. Information and opinions contained herein have been compiled in good faith and from sources believed to be reliable, but such information has not been independently verified and Mirae Asset Securities makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness, or correctness of the information and opinions contained herein or of any translation into English from the Korean language. In case of an English translation of a report prepared in the Korean language, the original Korean language report may have been made available to investors in advance of this report. The intended recipients of this report are sophisticated institutional investors who have substantial knowledge of the local business environment, its common practices, laws, and accounting principles, and no person whose receipt or use of this report would violate any laws or regulations or subject Mirae Asset Securities or any of its affiliates to registration or licensing requirements in any jurisdiction shall receive or make any use hereof.

This report is for general information purposes only and is not and shall not be construed as an offer or a solicitation of an offer to effect transactions in any securities or other financial instruments. The report does not constitute investment advice to any person, and such person shall not be treated as a client of Mirae Asset Securities by virtue of receiving this report. This report does not take into account the particular investment objectives, financial situations, or needs of individual clients. The report is not to be relied upon in substitution for the exercise of independent judgment. Information and opinions contained herein are as of the date hereof and are subject to change without notice. The price and value of the investments referred to in this report and the income from them may depreciate or appreciate, and investors may incur losses on investments. Past performance is not a guide to future performance. Future returns are not guaranteed, and a loss of original capital may occur. Mirae Asset Securities, its affiliates, and their directors, officers, employees, and agents do not accept any liability for any loss arising out of the use hereof.

Mirae Asset Securities may have issued other reports that are inconsistent with, and reach different conclusions from, the opinions presented in this report. The reports may reflect different assumptions, views, and analytical methods of the analysts who prepared them. Mirae Asset Securities may make investment decisions that are inconsistent with the opinions and views expressed in this research report. Mirae Asset Securities, its affiliates, and their directors, officers, employees, and agents may have long or short positions in any of the subject securities at any time and may make a purchase or sale, or offer to make a purchase or sale, of any such securities or other financial instruments from time to time in the open market or otherwise, in each case either as principals or agents. Mirae Asset Securities and its affiliates may have had, or may be expecting to enter into, business relationships with the subject companies to provide investment banking, market-making, or other financial services as are permitted under applicable laws and regulations.

No part of this document may be copied or reproduced in any manner or form or redistributed or published, in whole or in part, without the prior written consent of Mirae Asset Securities. For further information regarding company-specific information as it pertains to the representations and disclosures in this Appendix 1, please contact [compliance@miraeeasset.us.com](mailto:compliance@miraeeasset.us.com) or +1 (212) 407-1000.

#### **Distribution**

**United Kingdom:** This report is being distributed by Mirae Asset Securities (UK) Ltd. in the United Kingdom only to (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), and (ii) high net worth companies and other persons to whom it may lawfully be communicated, falling within Article 49(2)(A) to (E) of the Order (all such persons together being referred to as "Relevant Persons"). This report is directed only at Relevant Persons. Any person who is not a Relevant Person should not act or rely on this report or any of its contents.

**United States:** Mirae Asset Securities is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This report is distributed in the U.S. by Mirae Asset Securities (USA) Inc., a member of FINRA/SIPC, to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6(b)(4) under the U.S. Securities Exchange Act of 1934, as amended. All U.S. persons that receive this document by their acceptance hereof represent and warrant that they are a major U.S. institutional investor and have not received this report under any express or implied understanding that they will direct commission income to Mirae Asset Securities or its affiliates. Any U.S. recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Mirae Asset Securities (USA) Inc. Mirae Asset Securities (USA) Inc. accepts responsibility for the contents of this report in the U.S., subject to the terms hereof, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through Mirae Asset Securities. The securities described in this report may not have been registered under the U.S. Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the U.S. or to U.S. persons absent registration or an applicable exemption from the registration requirements.

**Hong Kong SAR:** This report is distributed in Hong Kong SAR by Mirae Asset Securities (HK) Limited, which is regulated by the Hong Kong Securities and Futures Commission. The contents of this report have not been reviewed by any regulatory authority in Hong Kong SAR. This report is for distribution only to professional investors within the meaning of Part I of Schedule 1 to the Securities and Futures Ordinance of Hong Kong SAR (Cap. 571, Laws of Hong Kong SAR) and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong SAR to any person.

**India:** This report is being distributed by Mirae Asset Capital Markets (India) Private Limited ("MACM") in India to the customers based in India and is personal information only for those authorised recipient(s). MACM is inter alia a Securities and Exchange Board of India ("SEBI") registered Research Analyst in India and is not registered outside India. MACM and Mirae Asset, Korea are group entities. MACM makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained herein. The user assumes the entire risk of any use made of this information. This report has been provided for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. Recipient must read the entire Appendix 1 to the report carefully for Important Disclosures & Disclaimers.

**All other jurisdictions:** Customers in all other countries who wish to effect a transaction in any securities referenced in this report should contact Mirae Asset Securities or its affiliates only if distribution to or use by such customer of this report would not violate applicable laws and regulations and not subject Mirae Asset Securities and its affiliates to any registration or licensing requirement within such jurisdiction.

## Mirae Asset Securities International Network

---

### Mirae Asset Securities Co., Ltd. (Seoul)

One-Asia Equity Sales Team  
Mirae Asset Center 1 Building  
26 Eulji-ro 5-gil, Jung-gu, Seoul 04539  
Korea

Tel: 82-2-3774-2124

---

### Mirae Asset Securities (USA) Inc.

810 Seventh Avenue, 37th Floor  
New York, NY 10019  
USA

Tel: 1-212-407-1000

---

### Mirae Asset Securities (Singapore) Pte. Ltd.

6 Battery Road, #11-01  
Singapore 049909  
Republic of Singapore

Tel: 65-6671-9845

---

### Mirae Asset Investment Advisory (Beijing) Co., Ltd

2401B, 24th Floor, East Tower, Twin Towers  
B12 Jianguomenwai Avenue, Chaoyang District  
Beijing 100022  
China

Tel: 86-10-6567-9699

---

### Ho Chi Minh Representative Office

7F, Saigon Royal Building  
91 Pasteur St.  
District 1, Ben Nghe Ward, Ho Chi Minh City  
Vietnam

Tel: 84-8-3910-7715

---

### Mirae Asset Securities (HK) Ltd.

Units 8501, 8507-8508, 85/F  
International Commerce Centre  
1 Austin Road West  
Kowloon  
Hong Kong SAR  
Tel: 852-2845-6332

---

### Mirae Asset Wealth Management (Brazil) CCTVM

Rua Funchal, 418, 18th Floor, E-Tower Building  
Vila Olimpia  
Sao Paulo - SP  
04551-060  
Brazil  
Tel: 55-11-2789-2100

---

### Mirae Asset Securities (Vietnam) LLC

7F, Saigon Royal Building  
91 Pasteur St.  
District 1, Ben Nghe Ward, Ho Chi Minh City  
Vietnam

Tel: 84-8-3911-0633 (ext.110)

---

### Beijing Representative Office

2401A, 24th Floor, East Tower, Twin Towers  
B12 Jianguomenwai Avenue, Chaoyang District  
Beijing 100022  
China

Tel: 86-10-6567-9699 (ext. 3300)

---

### Mirae Asset Capital Markets (India) Pvt Ltd

1st Floor, Tower 4, Equinox Business Park,  
LBS Marg, Off BKC, Kurla (West), Mumbai - 400 070  
India

Tel: 91-22-62661300 / 48821300

---

### Mirae Asset Securities (UK) Ltd.

41st Floor, Tower 42  
25 Old Broad Street,  
London EC2N 1HQ  
United Kingdom

Tel: 44-20-7982-8000

---

### PT. Mirae Asset Sekuritas Indonesia

District 8, Treasury Tower Building Lt. 50  
Sudirman Central Business District  
Jl. Jend. Sudirman, Kav. 52-54  
Jakarta Selatan 12190  
Indonesia  
Tel: 62-21-5088-7000

---

### Mirae Asset Securities Mongolia UTsk LLC

#406, Blue Sky Tower, Peace Avenue 17  
1 Khoroo, Sukhbaatar District  
Ulaanbaatar 14240  
Mongolia

Tel: 976-7011-0806

---

### Shanghai Representative Office

38T31, 38F, Shanghai World Financial Center  
100 Century Avenue, Pudong New Area  
Shanghai 200120  
China

Tel: 86-21-5013-6392

---