

Free Crypto APIs for 24h High/Low Price Data

To reliably obtain **24-hour high and low prices** for Bitcoin (BTC), Ethereum (ETH), and Solana (SOL), several free APIs are available. Below we compare three solid options that meet the criteria: no-cost (with generous or no API key requirements), accurate data, and support for 24h stats (with some flexibility for historical or custom intervals). For each API, key details like endpoints, authentication, update frequency, rate limits, historical data, and any quirks or reliability notes are provided.

CoinGecko API

CoinGecko is a popular cryptocurrency data aggregator offering a **free public REST API**. It provides up-to-date market data for thousands of coins without requiring an API key ¹. High and low prices over the past 24 hours are directly included in its responses for each asset. Key features:

- **Endpoint Example:** GET `https://api.coingecko.com/api/v3/coins/markets?vs_currency=USD&ids=bitcoin,ethereum,solana` – returns a JSON array of coins with fields like `high_24h` and `low_24h` for the last 24h period ². For example, the JSON contains `"high_24h": ...` and `"low_24h": ...` values for each coin's 24h high and low ². (Alternatively, the `/coins/{id}` endpoint's `market_data` also includes `high_24h` / `low_24h` for multiple currencies.)
- **Authentication: None required** for the free API. No API key is needed by default ¹. (CoinGecko does offer a “demo” API key for higher stable rate limits, but it's optional for basic use.)
- **Data Refresh Frequency:** CoinGecko updates most market data on a **1–5 minute interval** on the free API ³. This ensures 24h high/low stats are very fresh (usually within a few minutes of real-time). Paid tiers have faster updates (e.g. 30s), but for free users data is cached roughly every few minutes ³.
- **Rate Limits:** The public plan allows around **5–15 calls per minute** (dynamically, depending on load) ⁴. With a free registered API key (demo plan), this increases to a stable 30 calls/minute ⁴. In practice, moderate use is fine; hitting the API too fast may result in 429 errors. For occasional queries (e.g. a few times per hour) this is well within limits.
- **Historical Data:** CoinGecko's API supports historical price data. While it doesn't let you query an arbitrary “rolling” window by a single call, it offers endpoints to get **daily OHLC** or price charts. For example, `/coins/{id}/ohlcv` or `/market_chart` can provide past daily open/high/low/close data ⁵ ⁶. You can retrieve up to 90 days of minute/hour data or extensive daily data (CoinGecko provides at least 90 days of history without an API key, and more with certain endpoints) ⁷. This means you can calculate historical daily high-low swings by fetching the OHLC for those days.
- **Reliability & Maintenance:** CoinGecko is well-known for data quality and is actively maintained. The free API has been around for years and is used in many projects. One quirk is that heavy usage might require an API key or backoff – if you need higher throughput or more stability, using their free key (or paid plans) is suggested. Overall, CoinGecko's data (sourced from many exchanges) is comprehensive and **long-term viable**, making it a top choice for 24h high/low stats.

CoinPaprika API

CoinPaprika provides a free cryptocurrency API that's also rich in market data. It is an aggregator like CoinGecko and covers many coins. Notably, the free tier allows querying price statistics including (in USD by default) possibly the 24h high and low. Important details:

- **Endpoint Example:** GET `https://api.coinpaprika.com/v1/tickers/{coin_id}?quotes=USD` – returns the ticker data for a given coin (e.g. use `btc-bitcoin`, `eth-ethereum`, `sol-solana` as the `coin_id` for BTC, ETH, SOL respectively) with USD quote data. The JSON includes fields under a `quotes` object. For example, you'll see `quotes.USD.price` for current price, and associated 24h metrics. CoinPaprika's documentation indicates it provides **ATH, percent changes, volume**, etc., and it's expected to include **24h high and low** if available. *(If 24h high/low aren't directly given, they can be derived from historical data — see below.)* By default only USD data is returned unless specified. You can request multiple quote currencies (e.g. `quotes=USD,BTC`) if needed ⁸.
- **Authentication: No API key required** for the open free endpoints. The ticker endpoints are public. (They do have paid plans and an optional API key system, but for basic use no key or account is needed.)
- **Data Refresh Frequency:** CoinPaprika's ticker data updates **every 1 minute** on the free API ⁹. This means the 24h high/low values will be recalculated or updated each minute, providing very up-to-date stats.
- **Rate Limits:** The free usage is quite generous. According to CoinPaprika, a single IP can do up to **10 requests per second** (i.e. 600 per minute) before being limited ¹⁰. Additionally, the free tier allows ~20,000 calls per month for personal projects ¹¹ ¹². In practice, this is plenty for querying a few coins' data periodically. Hitting the 600/minute burst limit is unlikely in typical use; if you stay well under that (e.g. a few calls per minute) you'll be safe from throttling.
- **Historical Data:** CoinPaprika's API supports historical OHLCV data. On the free plan, you have access to **1 year of daily historical data** for coins ¹¹ ¹³. There is an endpoint like `/v1/coins/{coin_id}/ohlcv/today` or `/historical` that provides daily open, high, low, close, volume for past dates ¹⁴ ¹⁵. This means you can retrieve the daily high and low for each day going back up to a year (free tier) – useful if you need to compute daily swings over time. However, the free API may not support arbitrary window queries (e.g. you cannot directly ask “what was the high between 10am and 4pm yesterday” – you would need to pull the relevant historical data and calculate it).
- **Reliability & Quirks:** CoinPaprika is a reliable service known for fast updates. It aggregates data from many sources and has been in operation for several years. One quirk is that the set of quote currencies for free calls is somewhat limited (USD, BTC, ETH are allowed by default) ⁸. USD is usually the main quote for price stats, so this is fine for most cases. Another consideration is the **free tier limits**: 20k calls/month means it's free for non-commercial use but heavy enterprise usage would require a paid plan. For long-term viability, CoinPaprika appears committed to maintaining a free tier for basic users (with active documentation and even client libraries). In summary, it's a solid choice for 24h high/low data with the bonus of easy access to historical daily highs and lows.

Binance API (Exchange Data)

Binance – as one of the largest crypto exchanges – offers a free API endpoint for **24-hour price statistics** on trading pairs. Using Binance's API for BTC, ETH, and SOL (against a stablecoin like USD) gives you real-time 24h high and low directly from the exchange's market data. Key points:

- **Endpoint Example:** GET `https://api.binance.com/api/v3/ticker/24hr?symbol=BTCUSDT` – returns 24h stats for Bitcoin/USD. The JSON response includes fields `highPrice` and `lowPrice`, which are the highest and lowest traded prices in the last 24 hours ¹⁶. For example, a response snippet looks like: `"highPrice": "100.00000000", "lowPrice": "0.10000000", ...` (along with other stats such as volume, price change, etc.) ¹⁶. You would use `ETHUSDT` for Ethereum and `SOLUSDT` for Solana, respectively, or any other trading pair available on Binance (e.g. `BTCBUSDT`).
- **Authentication:** **No API key required** for this public endpoint. Binance's public market data APIs can be accessed freely. (No sign-up needed unless you start using private account endpoints.)
- **Data Refresh Frequency:** The data is essentially **real-time**, since it's coming directly from live market prices on Binance. The 24hr ticker endpoint provides a rolling 24-hour window ending at the time of your request ¹⁷. Every request pulls the latest 24h high/low up to that second. There's no caching delay on Binance's end for this endpoint – it reflects the exchange's current stats (Binance updates these continuously as trades occur).
- **Rate Limits:** Binance uses a weight-based rate limit system. Each single-symbol `/ticker/24hr` request has a small weight (1), and an IP can use up to **1200 weight per minute** (equivalent to 1200 single requests/min) in the default limits. In practical terms, you can query this endpoint very frequently without hitting limits – e.g. querying a few symbols even every few seconds is fine. (If you omit the symbol to get all market tickers in one call, that has a higher weight of 40 ¹⁸, but for just 3 symbols it's more efficient to call 3 times separately.) Binance's limits are generous on the free API, making it suitable for high-frequency data pulls if needed.
- **Historical Data:** Binance's API supports historical price data via its **Klines (candlesticks)** endpoint. For flexibility beyond the last 24h, you can use `GET /api/v3/klines` with `interval=1d` to retrieve daily OHLC data for each asset. For example, you can get yesterday's candle (which includes that day's high and low) or a range of days. This allows you to gather **daily high/low values for past dates**. If you needed a custom time window (say, high/low over the last 6 hours), you could use a shorter interval (like 1-minute klines) to get the price data and then compute the high/low. However, Binance does not provide a direct "rolling X-hour high/low" – you'd have to derive that from raw data.
- **Reliability & Quirks:** Binance's API is very reliable and fast for real-time data. Because it's an exchange, the prices represent Binance's market specifically – which for major assets is usually in line with global averages, though minor discrepancies can exist across exchanges. One consideration is **market pair selection**: to use this for "the price of BTC", you must choose a trading pair (BTC vs USD stablecoin). BTC/USD is the most liquid pair on Binance and a good proxy for USD price. Users in certain regions may face **geographical restrictions** with the main Binance API domain; Binance has alternative domains (like `data.binance.com` or `api.binance.us` for US) if needed ¹⁹ ²⁰. For most, the standard endpoint is accessible. In terms of long-term viability, Binance is a major platform and is expected to maintain its API, though note it's an exchange API (focused on current market data) rather than a historical data service. It's excellent for live 24h stats and robust under heavy load.

Additional Considerations

Each of the above APIs offers free access to 24-hour high/low price data, but they have different strengths:

- **Data Quality:** Aggregators like CoinGecko and CoinPaprika provide a **broad market view** (averaged across many exchanges) which can be useful for a general “global” price high/low. Binance provides a specific exchange’s data, which is extremely accurate for that marketplace (and by extension a good indicator for global price, since Binance has high liquidity). All are reputable in terms of data accuracy.
- **Flexibility in Time Windows:** None of these free APIs directly let you query an arbitrary time window’s high/low in one call (they default to the standard rolling 24h or daily periods). However, both CoinGecko and CoinPaprika have **historical endpoints** that you can leverage to compute high/low over custom periods. For example, to get the high-low for a specific date, you might fetch that day’s OHLC data. If truly flexible intraday windows are needed (e.g. 12h window), you could retrieve smaller interval data (Binance’s 1-min candles or CoinGecko’s market_chart data) and calculate the min/max. This may require some coding on your end, since free APIs typically don’t offer an out-of-the-box “custom window” high/low.
- **Rate Limits and Usage:** For light to moderate use (a few API calls per minute), all three options work without cost. If your application needs **higher request volumes**, Binance’s API stands out as it can handle very frequent calls without hitting limits easily. CoinGecko and CoinPaprika free tiers are sufficient for periodic updates (e.g. updating a dashboard every few minutes). If you find CoinGecko’s default limit (5-15/min) too restrictive, using their free demo key (30/min) or switching to CoinPaprika (much higher limit) are solutions.
- **Long-term Viability:** CoinGecko and CoinPaprika have explicit commitments to their free APIs (with optional paid plans) and active documentation, suggesting they will remain available long-term for the community. Binance’s API is also expected to persist (it’s critical for many traders/bots), though being an exchange, changes can occur if market conditions or regulations change – they generally give notice for any breaking changes.

If none of the free options fully meet your needs (for example, if you require multiple custom time-frame queries or enterprise-level reliability), you might consider using a combination of these services or looking at paid plans. There are also other free APIs not detailed here (e.g. **CryptoCompare** offers free API keys with generous monthly limits and provides 24h stats and historical data ²¹ ²², though an API key is required). In practice, many developers use CoinGecko’s free API as a first choice for its ease of use and no-key access, perhaps backed by exchange APIs like Binance for real-time data. By comparing and possibly blending these sources, you can ensure you have accurate 24-hour high/low data for BTC, ETH, and SOL with the flexibility to calculate daily price swings and even extended periods as needed.

Sources:

- CoinGecko API Documentation – 24h high/low in coin market data ² ¹
- CoinGecko Support – Data update frequency and rate limits ³ ⁴
- CoinPaprika API Docs – Ticker endpoint info and update interval ⁹ ⁸
- CoinPaprika Terms – Free API rate limit (10 requests/sec per IP) ¹⁰
- CoinPaprika Pricing – Free plan features (1-year history, call limits) ¹¹ ¹³
- Binance API Docs – 24hr ticker endpoint example (highPrice/lowPrice) ¹⁶
- Binance API Docs – Note on 24hr rolling window vs request time ¹⁷

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