

Docker image tag

Docker image reference with tag, e.g. ubuntu:22.04.

```
^[a-z0-9]+([._-][a-z0-9]+)*(/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\w][\w.-]{0,127})?$
```

Token-by-token breakdown

Token	Meaning
^	start of string (or line in multiline mode)
[a-z0-9]+	one or more: any of: lowercase letters, digits
(	start of a capturing group
[._-]	any of: ".", "_", "-"
[a-z0-9]+	one or more: any of: lowercase letters, digits
)*	end of group, zero or more
(	start of a capturing group
/	literal text "/"
[a-z0-9]+	one or more: any of: lowercase letters, digits
(	start of a capturing group
[._-]	any of: ".", "_", "-"
[a-z0-9]+	one or more: any of: lowercase letters, digits
)*	end of group, zero or more
)*	end of group, zero or more
(	start of a capturing group
:	literal text ":"
[\w]	any of: word chars (A–Z, a–z, 0–9, _)
[\w.-]{0,127}	between 0 and 127 times: any of: word chars (A–Z, a–z, 0–9, _), ".", "-"
)?	end of group, optional (zero or one)
\$	end of string (or line in multiline mode)

Quick usage in 7 languages

JavaScript	<pre>const re = /^[a-z0-9]+([._-][a-z0-9]+)*(/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\w][\w.-]{0,127})?\$/; re.test(value);</pre>
Python	<pre>import re re.match(r"^[a-z0-9]+([._-][a-z0-9]+)*(/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\w][\w.-]{0,127})?\$", value)</pre>
Java	<pre>Pattern.compile("^[a-z0-9]+([._-][a-z0-9]+)*(/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\\w][\\w.-]{0,127})?\$").matcher(value).matches();</pre>

C# / .NET	<code>Regex.IsMatch(value, @"^[a-z0-9]+([._-][a-z0-9]+)*(/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\w][\w.-]{0,127})?\$");</code>
Go	<code>regexp.MustCompile(`^[a-z0-9]+([._-][a-z0-9]+)*(/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\w][\w.-]{0,127})?\$`).MatchString(value)</code>
Ruby	<code>/^[a-z0-9]+([._-][a-z0-9]+)*(\/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\w][\w.-]{0,127})?\$/ .match?(value)</code>
PHP	<code>preg_match('~^[a-z0-9]+([._-][a-z0-9]+)*(/[a-z0-9]+([._-][a-z0-9]+)*)*(:[\w][\w.-]{0,127})?\$~', \$value);</code>

Common pitfalls

- **Anchored to the whole string.** This pattern uses `^` and `$`, so it requires the entire input to match. To find it inside a longer text, drop the anchors and use the global (`g`) flag.
- **Lowercase only.** Ranges like `[a-z]` won't match uppercase. Add `A-Z` (or the `i` flag) if uppercase input should be accepted.
- **Watch for backtracking.** This pattern nests quantifiers; on adversarial input that can cause exponential backtracking (ReDoS). Test with long non-matching strings, or use an RE2-based engine.
- **Escape it correctly per language.** In Java and JavaScript strings each backslash must be doubled (`\\d`); in Python, Go, and C# use raw/verbatim strings so the backslashes survive.
- **Validate beyond format.** Matching the format doesn't guarantee the value is real. Confirm the docker image tag against a source of truth (database, API, or checksum) where it matters.