

CSS rgb() / rgba() color

CSS rgb(r, g, b) or rgba(r, g, b, a) value.

```
^rgba?(\\s*d+\\s*,\\s*d+\\s*,\\s*d+\\s*(,\\s*(0|1|0?\\.d+)\\s*)?\\s*)$
```

Token-by-token breakdown

Token	Meaning
^	start of string (or line in multiline mode)
rgb	literal text "rgb"
a?	optional (zero or one): the literal "a"
\(	literal "("
\\s*	zero or more: whitespace
\\d+	one or more: digit (0–9)
\\s*	zero or more: whitespace
,	literal text ","
\\s*	zero or more: whitespace
\\d+	one or more: digit (0–9)
\\s*	zero or more: whitespace
,	literal text ","
\\s*	zero or more: whitespace
\\d+	one or more: digit (0–9)
\\s*	zero or more: whitespace
(	start of a capturing group
,	literal text ","
\\s*	zero or more: whitespace
(	start of a capturing group
0	literal text "0"
	OR — try the alternative
1	literal text "1"
	OR — try the alternative
0?	optional (zero or one): the literal "0"
\\.	literal "."
\\d+	one or more: digit (0–9)
)	end of group
\\s*	zero or more: whitespace

Token	Meaning
)?	end of group, optional (zero or one)
\)	literal ")"
\$	end of string (or line in multiline mode)

Quick usage in 7 languages

JavaScript	<pre>const re = /^rgba?\(\s*\d+\s*,\s*\d+\s*,\s*\d+\s*(,\s*(0 1 0?\.\d+)\s*)?\)\)\$/; re.test(value);</pre>
Python	<pre>import re re.match(r"^rgba?\(\s*\d+\s*,\s*\d+\s*,\s*\d+\s*(,\s*(0 1 0?\.\d+)\s*)?\)\$", value)</pre>
Java	<pre>Pattern.compile("^rgba?\\(\\s*\\d+\\s*,\\s*\\d+\\s*,\\s*\\d+\\s*(,\\s*(0 1 0?\\.\\d+)\\s*)?\\)\$").matcher(value).matches();</pre>
C# / .NET	<pre>Regex.IsMatch(value, @"^rgba?\(\s*\d+\s*,\s*\d+\s*,\s*\d+\s*(,\s*(0 1 0?\.\d+)\s*)?\)\$");</pre>
Go	<pre>regexp.MustCompile(`^rgba?\(\s*\d+\s*,\s*\d+\s*,\s*\d+\s*(,\s*(0 1 0?\.\d+)\s*)?\)\$`).MatchString(value)</pre>
Ruby	<pre>/^rgba?\(\s*\d+\s*,\s*\d+\s*,\s*\d+\s*(,\s*(0 1 0?\.\d+)\s*)?\)\$/ .match?(value)</pre>
PHP	<pre>preg_match('~^rgba?\(\s*\d+\s*,\s*\d+\s*,\s*\d+\s*(,\s*(0 1 0?\.\d+)\s*)?\)\$~', \$value);</pre>

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.
- **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 css rgb() / rgba() color against a source of truth (database, API, or checksum) where it matters.