

Binary number with 0b prefix

Binary literal: 0b101010.

```
^0[bB][01]+$
```

Token-by-token breakdown

Token	Meaning
^	start of string (or line in multiline mode)
0	literal text "0"
[bB]	any of: "b", "B"
[01]+	one or more: any of: "0", "1"
\$	end of string (or line in multiline mode)

Quick usage in 7 languages

JavaScript	<pre>const re = /^0[bB][01]+\$/; re.test(value);</pre>
Python	<pre>import re re.match(r"^0[bB][01]+\$", value)</pre>
Java	<pre>Pattern.compile("^0[bB][01]+\$").matcher(value).matches();</pre>
C# / .NET	<pre>Regex.IsMatch(value, @"^0[bB][01]+\$");</pre>
Go	<pre>regexp.MustCompile(`^0[bB][01]+\$`).MatchString(value)</pre>
Ruby	<pre>/^0[bB][01]+\$/ .match?(value)</pre>
PHP	<pre>preg_match('~^0[bB][01]+\$~', \$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.
- **Validate beyond format.** Matching the format doesn't guarantee the value is real. Confirm the binary number with 0b prefix against a source of truth (database, API, or checksum) where it matters.