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Code No. 029-18701 (100 mg)

## Blasticidin S Hydrochloride

### ブラストサイジンS塩酸塩

Blasticidin S hydrochloride is a nucleoside antibiotic which inhibits protein synthesis in both prokaryotes and eukaryotes. The resistance is conferred by expression of either *BSD* or *bsr*, Blasticidin S deaminase genes that convert Blasticidin S to a non-toxic deaminohydroxy derivatives.

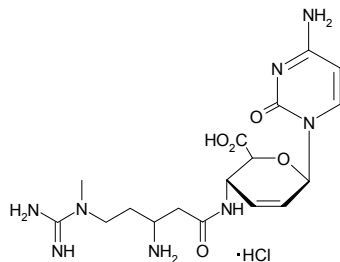
Blasticidin S hydrochloride is used to select transfected cells carrying *BSD* or *bsr* resistance genes.

**Molecular formula** :  $C_{17}H_{26}N_8O_5 \cdot HCl$

**Molecular weight** : 458.90

**CAS No.** 3513-03-9

**Structure** :



**Source** : *Streptomyces griseochromogenes*

**Resistance gene** : *BSD* (from *Aspergillus terreus*)  
*bsr* (from *Bacillus cereus*)

**Using for Selection** :

[Selection in *E. coli*]

Use Low Salt LB medium containing 50-100  $\mu\text{g/mL}$  Blasticidin S.

Preparation of Low Salt LB medium :

Combine Tryptone 10 g, NaCl 5 g and Yeast Extract 5 g and add deionized-distilled water to 950 mL. Adjust pH to 7.0 with 1N NaOH and bring up to 1 liter. For plates, add 15 g/L agarose before autoclaving.

Autoclave at 121 °C for 20 minutes.

Allow the medium to cool to at least 55 °C before adding Blasticidin S to 50-100  $\mu\text{g/mL}$  final concentration.

Store unused medium and plates at 4 °C in the dark.

[Selection in mammalian cell lines]

2-10  $\mu\text{g/mL}$  Blasticidin S.

The concentration of Blasticidin S required for selection in mammalian cells can vary depending on the cell type and the cell line used.

Please optimize the most appropriate concentration.

**[Precaution for use]**

- Do not subject stock solution to freeze-thaw cycles.
- Do not store in a frost-free freezer.
- Medium containing Blasticidin S may be stored at 4 °C for up to approx. 2 weeks.

**[Storage]** Store at 2-10 °C in the dark, under inert gas.

**[Package]** 100 mg

**[Reference]**

Takeuchi, S., Hirayama, K., Ueda, K., Sakai, H. and Yonehara, H., *J. Antibiot. (Tokyo)*, **11**(1), 1-5(1958).

## FUJIFILM Wako Pure Chemical Corporation

1-2, Doshomachi 3-Chome, Chuo-Ku, Osaka 540-8605, Japan  
Telephone : + 81-6-6203-3741  
Facsimile : + 81-6-6201-5964  
<http://www.wako-chem.co.jp>

**FUJIFILM Wako Chemicals U.S.A. Corporation**

1600 Bellwood Road  
Richmond, VA 23237  
U.S.A.  
Telephone : +1-804-271-7677  
Facsimile : +1-804-271-7791  
<http://www.wakousa.com>

**FUJIFILM Wako Chemicals Europe GmbH**

Fuggerstrasse 12  
D-41468 Neuss  
Germany  
Telephone : + 49-2131-3111-0  
Facsimile : + 49-2131-311100  
<http://www.wako-chemicals.de>

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