



genespin

DATA SHEET

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> Blasticidin S HCl Solution

cat. no.	amount	note
STS-BLAS20	20mg	solution
STS-BLAS21	100mg	solution

Blasticidin S is a peptidyl nucleoside antibiotic isolated from the culture broth of *Streptomyces griseochromogenes*. Blasticidin S specifically inhibits protein synthesis in both prokaryotes and eukaryotes through inhibition of peptide-bond formation in the ribosomal machinery.

Blasticidin S allows the selection and maintenance of cells expressing the blasticidin-resistance gene. Three blasticidin-resistance genes have been cloned and sequenced: an acetyl transferase gene, *bls*, from *Streptoverticillum* sp. JCM 4673, a blasticidin producer strain, and two deaminase genes, *bsr*, from *Bacillus cereus* and *BSD* from *Aspergillus terreus*. Both genes, *bsr* and *BSD*, are used as dominant selectable markers for transformation experiments in mammalian and plant cells. Although Blasticidin S was developed as a selection agent for mammalian cells, the *bsr* and *BSD* resistance genes can also be used in *E. coli*.

Blasticidin S resistant transformants can be selected in low salt LB agar medium, pH 8, supplemented with 100 µg/ml blasticidin S. The working concentrations of blasticidin S for mammalian cell lines varie from 3 to 50 µg/ml. In a starting experiment we recommend to determine optimal concentrations of antibiotic required to kill your host cell line. After treatment, cell death occurs rapidly allowing the selection of transfected cells with plasmids carrying the *BSD* or *bsr* genes in as little as 7 days post-transfection.

Formulation

$C_{17}H_{26}N_8O_5$

Molecular Weight

458,9

Solubility

Supplied as a 10mg/ml sterile solution in HEPES buffer. Soluble in water and slightly alkaline or acid solution.

Storage

Store dry at 0-5°C.

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