**Blasticidine S hydrochloride MG2506**

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**Technical literature is available at:** [**www.mesgenbio.com**](http://www.mesgenbio.com)**. E-mail MesGen Technical Services if you have questions on use of this system: tech@mesgenbio.com**

**Description**

Blasticidin S is used as a selection agent for transformed cells that contain the resistance genes bls, bsr, or BSD. Blasticidiin S has been used to select HEK293-T cells with TLR-2 constructs and HEK-D5 cells. It is also used to study protein synthesis at the level of peptide bond formation. Blasticidin S belongs to the aminoacylnucleoside class of antibiotics. It inhibits protein synthesis in bacteria and eukaryotes.  It also has fungicidal properties and prevents rice blast disease.

**Selection condition**

**-** *Escherichia coli*
*E. coli* is poorly sensitive to blasticidin, but transformants resistant to blasticidin can be selected on low salt LB agar medium (pH 8) supplemented with 100 μg/ml blasticidin. High pH enhances the activity of blasticidin.

*- Mammalian cells*
The working concentration of blasticidin for mammalian cell lines varies from 1 to 10 μg/ml, in a few cases up to 30 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 *bsr* or *BSD* genes in as little as 7 days post-transfection. Suggested concentrations of blasticidin for selection in some examples of mammalian cells are listed below.

**Solubility**

Water: >10mg/ml, soluble clear, colorless

**Storage condition**

-20°C

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| CAS : 3513-03-9 | MDL number : [MFCD02091640](https://www.sigmaaldrich.com/catalog/search?term=MFCD02091640&interface=MDL%20No.&N=0&mode=partialmax&lang=en&region=US&focus=product) |
| Molecular weight : 458.90 | Molecular formula : C17H26N8O5.HCl |
| **Synonym:**Blasticidin S | **HPLC>**95% |

**For Research Use Only. Not For Use In Diagnostic Procedures.**