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## DATASHEET

Brilliant Blue G

### Product overview

<b>Name</b>	Brilliant Blue G
<b>Cat No</b>	HB0716
<b>Description</b>	Non-competitive P2X <sub>7</sub> antagonist. Protein-binding dye.
<b>Alternative names</b>	Acid blue 90; Coomassie Brilliant Blue G; NSC 328382; CBBG
<b>Biological description</b>	Non-competitive P2X <sub>7</sub> antagonist (IC <sub>50</sub> values are 10 and 200 nM at rat and human P2X <sub>7</sub> respectively). Displays neuroprotective and anti-inflammatory properties. Also a protein binding dye causing a colour change from red to blue.
<b>Biological action</b>	Dyes & stains

### Solubility & Handling

<b>Storage instructions</b>	Room temperature
<b>Solubility overview</b>	Soluble in water (40mg/ml, at 20 °C) or methanol
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	Coomassie Brilliant Blue G (CBBG)
<b>Molecular Weight</b>	854.02
<b>Chemical structure</b>	The chemical structure of Coomassie Brilliant Blue G (CBBG) is shown, featuring a central benzene ring with three dimethylamino groups and three sulfonate groups. One sulfonate group is shown as a sodium salt (SO <sub>3</sub> <sup>-</sup> Na <sup>+</sup> ).
<b>Molecular Formula</b>	C <sub>47</sub> H <sub>48</sub> N <sub>3</sub> NaO <sub>7</sub> S <sub>2</sub>
<b>CAS Number</b>	6104-58-1
<b>PubChem identifier</b>	6324599
<b>SMILES</b>	CCN(CC1=CC(=CC=C1)S(=O)(=O)[O-])C2=CC(=C(C=C2)/C(=C/3\C=CC(=[N+](CC)CC4=CC(=CC=C4)S(=O)(=O)[O-])C=C3C)/C5=CC=C(C=C5)NC6=CC=C(C=C6)OCC)C.[Na+]

### References

#### Block of purinergic P2X(7) receptor is neuroprotective in an animal model of Alzheimer's disease.

Ryu JK *et al* (2008) Neuroreport 19(17)

**PubMedID** [18852683](#)

#### Brilliant blue G selectively blocks ATP-gated rat P2X(7) receptors.

Jiang LH *et al* (2000) Mol Pharmacol 58(1)

**PubMedID** [10860929](#)

#### A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding.

Bradford MM (1976) Anal Biochem 72

