

Product Name: TBB

Catalog No.: 2275

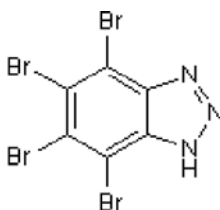
Batch No.: 2

CAS Number: 17374-26-4

IUPAC Name: 4,5,6,7-Tetrabromobenzotriazole

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆HBr₄N₃
Batch Molecular Weight: 434.71
Physical Appearance: Off-white solid
Solubility: DMSO to 100 mM
ethanol to 15 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.18 (Chloroform:Methanol [9:1])
Melting Point: Between 262 - 264°C
HPLC: Shows 99.1% purity
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	16.58	0.23	9.67
Found	16.61	0.45	9.47

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 17374-26-4

IUPAC Name: 4,5,6,7-Tetrabromobenzotriazole

Description:

A cell-permeable, selective inhibitor of casein kinase-2 (CK2) (IC_{50} = 0.9 and 1.6 μ M for rat liver and human recombinant CK2 respectively). Exhibits modest discrimination between CK2 subunits, with K_i values ranging from 80 nM to 210 nM. Acts in an ATP/GTP-competitive manner and displays one to two orders of magnitude selectivity over a panel of 33 protein kinases.

Physical and Chemical Properties:

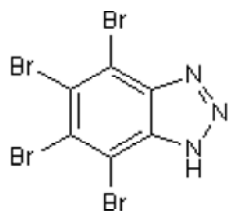
Batch Molecular Formula: $C_6HBr_4N_3$

Batch Molecular Weight: 434.71

Physical Appearance: Off-white solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Zien *et al* (2005) Tetrabromobenzotriazole (TBBt) and tetrabromobenzimidazole (TBBz) as selective inhibitors of protein kinase CK2: evaluation of their effects on cells and different molecular forms of human CK2. *Biochim.Biophys.Acta.* **1754** 271. PMID: 16203192.

Pagano *et al* (2004) Optimization of protein kinase CK2 inhibitors derived from 4,5,6,7-tetrabromobenzimidazole. *J.Med.Chem.* **47** 6239. PMID: 15566294.

Sarno *et al* (2001) Selectivity of 4,5,6,7-tetrabromobenzotriazole, an ATP site-directed inhibitor of protein kinase CK2 ('casein kinase-2'). *FEBS Lett.* **496** 44. PMID: 11343704.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 15 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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