

## **Product** Data Sheet

# Serpin A1b Protein, Mouse (HEK293, Fc)

Cat. No.: HY-P74555

Synonyms: Alpha-1-antitrypsin 1-2; AAT; Serpina1b; Aat2; Dom2; Spi1-2

Species: Source: HEK293

Accession: P22599 (E25-K413)

Gene ID: 20701

Molecular Weight: Approximately 70-100 kDa

#### **PROPERTIES**

AA Sequence					
70 Sequence	EDVQETDTSQ	KDQSPASHEI	ATNLGDFAIS	LYRELVHQSN	
	TSNIFFSPVS	IATAFAMLSL	GSKGDTHTQI	LEGLQFNLTQ	
	TSEADIHKSF	QHLLQTLNRP	DSELQLSTGN	GLFVNNDLKL	
	VEKFLEEAKN	HYQAEVFSVN	FAESEEAKKV	INDFVEKGTQ	
	GKIVEAVKEL	DQDTVFALAN	YILFKGKWKK	PFDPENTEEA	
	EFHVDKSTTV	$K\;V\;P\;M\;M\;M\;L\;S\;G\;M$	LDVHHCSILS	SWVLLMDYAG	
	NASAVFLLPE	DGKMQHLEQT	LNKELISKIL	LNRRRRLVQI	
	HIPRLSISGD	YNLKTLMSPL	GITRIFNNGA	DLSGITEENA	
	PLKLSKAVHK	AVLTIDETGT	EAAAATVFEA	VPMSMPPILR	
	FDHPFLFIIF	EEHTQSPIFV	GKVVDPTHK		
Biological Activity	Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH2. The $IC_{50}$ value is 4.166 nM, as measured under the described conditions.				
Appearance	Lyophilized powder				
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.				
Endotoxin Level	<1 EU/µg, determined by LAL method.				
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).				
	recommended to add a ca	arrier protein (0.1% BSA, 5%	HSA, 10% FBS or 5% Trehal	ose).	
Storage & Stability	Stored at 20°C for 2 years	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is			
Storage & Stability	recommended to freeze aliquots at -20°C or -80°C for extended storage.				
Shipping	Room temperature in continental US; may vary elsewhere.				

### **DESCRIPTION**

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#### Background

Serpin A1b, a vigilant guardian within the intricate realm of cellular regulation, operates as an adept inhibitor of serine proteases. Elastase stands as its primary target, encountering a formidable defense against its enzymatic activity. Beyond its specialized role, Serpin A1b also demonstrates a moderate affinity for plasmin and thrombin, showcasing its versatility in interacting with a spectrum of serine proteases. In fulfilling its regulatory duties, Serpin A1b emerges as a multifaceted sentinel, contributing to the nuanced orchestration of proteolytic processes within cellular landscapes.

Caution: Product has not been fully validated for medical applications. For research use only.

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