

## ITIH3 Protein, Human (HEK293, His)

Cat. No.:	HY-P70407
Synonyms:	rHuInter-alpha-trypsin inhibitor heavy chain H3/ITIH3/, His; Inter-alpha-trypsin inhibitor heavy chain H3; ITI heavy chain H3; ITI-HC3; Inter-alpha-inhibitor heavy chain 3; Serum-derived hyaluronan-associated protein; SHAP
Species:	Human
Source:	HEK293
Accession:	Q06033 (L35-D651)
Gene ID:	3699
Molecular Weight:	Approximately 90.0 kDa

### PROPERTIES

#### AA Sequence

L	P	E	G	V	A	N	G	I	E	V	Y	S	T	K	I	N	S	K	V	T	S	R	F	A	H	N	V	V	T	M	R	A	V	N	R	A	D	T	A	
K	E	V	S	F	D	V	E	L	P	K	T	A	F	I	T	N	F	T	L	T	I	D	G	V	T	Y	P	G	N	V	K	E	K	E	V	A	K	K	Q	
Y	E	K	A	V	S	Q	G	K	T	A	G	L	V	K	A	S	G	R	K	L	E	K	F	T	V	S	V	N	V	A	A	G	S	K	V	T	F	E	L	
T	Y	E	E	L	L	K	R	H	K	G	K	Y	E	M	Y	L	K	V	Q	P	K	Q	L	V	K	H	F	E	I	E	V	D	I	F	E	P	Q	G	I	
S	M	L	D	A	E	A	S	F	I	T	N	D	L	L	G	S	A	L	T	K	S	F	S	G	K	K	G	H	V	S	F	K	P	S	L	D	Q	Q	R	
S	C	P	T	C	T	D	S	L	L	N	G	D	F	T	I	T	Y	D	V	N	R	E	S	P	G	N	V	Q	I	V	N	G	Y	F	V	H	F	F	A	
P	Q	G	L	P	V	V	P	K	N	V	A	F	V	I	D	I	S	G	S	M	A	G	R	K	L	E	Q	T	K	E	A	L	L	R	I	L	E	D	M	
Q	E	E	D	Y	L	N	F	I	L	F	S	G	D	V	S	T	W	K	E	H	L	V	Q	A	T	P	E	N	L	Q	E	A	R	T	F	V	K	S	M	
E	D	K	G	M	T	N	I	N	D	L	G	L	L	R	G	I	S	M	L	N	K	A	R	E	E	H	R	I	P	E	R	S	T	S	I	V	I	M	L	T
D	G	D	A	N	V	G	E	S	R	N	P	E	K	I	Q	E	N	V	R	N	A	I	G	G	K	F	P	L	Y	N	L	G	F	G	N	N	L	N	Y	N
F	L	E	N	M	A	L	E	N	H	S	G	F	A	R	R	I	Y	E	D	S	D	A	D	L	Q	L	Q	G	F	Y	E	E	V	A	N	P	L	L	T	G
V	E	M	E	Y	P	E	N	A	I	Q	L	D	L	T	Q	N	T	Y	Q	H	F	Y	D	G	S	E	I	V	V	A	G	R	L	V	D	E	D	M	N	S
F	K	A	D	V	K	G	H	G	A	E	T	N	D	L	T	F	T	E	E	V	D	M	K	E	M	E	K	A	L	Q	E	R	D	Y	I	F	G	N	Y	I
E	R	L	W	A	Y	L	T	I	E	A	Q	L	L	E	K	R	K	N	A	H	G	E	E	K	E	N	L	T	A	R	A	L	D	L	S	L	K	Y	H	F
V	T	P	L	T	S	M	V	V	T	A	K	P	E	D	N	E	D	E	R	A	I	A	D	K	P	G	E	D	A	E	A	T	P	V	S	P	A	M	S	Y
L	T	S	Y	Q	P	P	Q	N	P	D	Y	Y	Y	V	D	G	D																							

#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

#### Endotoxin Level

<1 EU/µg, determined by LAL method.

#### Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/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).

#### Storage & Stability

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 recommended to freeze aliquots at -20°C or -80°C for extended storage.

#### Shipping

Room temperature in continental US; may vary elsewhere.

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## DESCRIPTION

### Background

The ITIH3 protein exhibits a versatile role, potentially acting as a carrier for hyaluronan in serum and serving as a binding protein that facilitates interactions between hyaluronan and various matrix proteins, including those present on cell surfaces in tissues. These interactions play a pivotal role in regulating the localization, synthesis, and degradation of hyaluronan, processes essential for cells undergoing diverse biological activities. Within the context of I-alpha-I plasma protease inhibitors, ITIH3 contributes to the assembly of these inhibitors, forming complexes with one or two heavy chains (HC) and the light chain bikunin. Notably, the pre-alpha-inhibitor (P-alpha-I) consists of ITIH3/HC3 and bikunin, highlighting the integral involvement of ITIH3 in the structural composition of these plasma protease inhibitors.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA