

Integrin alpha 8 beta 1 Protein, Human (HEK293, His)

Cat. No.: HY-P73869A
Synonyms: Integrin alpha 8 beta 1; ITGA8; ITGB1
Species: Human
Source: HEK293
Accession: P53708 (F39-L1012)&P05556-1 (Q21-D728)
Gene ID: 8516& 3688
Molecular Weight: 120-140 kDa&100-120 kDa

PROPERTIES

AA Sequence

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

GDGKLGGLV L PNDGQCHLEN NMYTMSHYD YPSIAHLVQK
 LSENNIQTIF AVTEEFQPVY KELKNLIPKS AVGTLSANSS
 NVIQLIIDAY NSLSSEVILE NGKLSEGVTI SYKSYCKNGV
 NGTGENGRKC SNISIGDEVQ FEISITSNKC PKKSDSDFKI
 RPLGFTEEVE VILQYICECE CQSEGIPEP KCEHNGTFE
 CGACRCNEGR VGRHCECSTD EVNSEDMDAY CRKENSSEIC
 SNNGECVCGQ CVCRKRDNTN EIYSGKFCEC DNFNCDRSNG
 LICGGNGVCK CRVCECNPNY TGSACDCSLD TSTCEASNGQ
 ICNGRGICEC GVKCKTDPKF QGQTCEMCQT CLGVCAEHKE
 CVQCRAFNKG EKKDTCTQEC SYFNITKVES RDKLPPVQP
 DPVSHCKEED VDDCWFFYFTY SVNGNNEVMV HVVENPECP
 GPD

Appearance	Lyophilized powder
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
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 ₂ O.
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.

DESCRIPTION

Background

The Integrin alpha-8/beta-1 protein plays a crucial role in organogenesis, particularly in the development of the kidney and potentially other organs, by orchestrating the recruitment of mesenchymal cells into epithelial structures. Recognizing the R-G-D sequence within a broad spectrum of ligands, including TNC, FN1, SPP1, TGFB1, TGFB3, and VTN, Integrin alpha-8/beta-1 is implicated in diverse cellular interactions critical for organ formation. In kidney genesis, NPNT is identified as its likely functional ligand. Acting as a neuronal receptor for TNC, it regulates cell-cell interactions and modulates the neurite outgrowth of sensory and motor neurons. Structurally, Integrin alpha-8/beta-1 forms a heterodimer, with the alpha subunit comprising a heavy and a light chain linked by a disulfide bond. Specifically, the alpha-8 subunit associates with the beta-1 subunit, underscoring its integral role in mediating cell-matrix and cell-cell interactions during organ development and neural processes.

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

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