

Integrin alpha V beta 3 Protein, Human (HEK293, C-His)

Cat. No.:	HY-P73868A
Synonyms:	
Species:	Human
Source:	HEK293
Accession:	P06756 & P05106(F31-V992 & G27-D718)
Gene ID:	3685 & 3690
Molecular Weight:	Approximately 90.31&110-150 kDa

PROPERTIES

AA Sequence

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

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

Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Fibronectin at 2 µg/mL (100 µL/well) can bind Biotinylated Integrin alpha V beta 3. The ED ₅₀ for this effect is 0.8448 µg/mL.
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 ₂ 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.

DESCRIPTION

Background

The Integrin alpha V beta 3 protein, specifically the alpha-V (ITGAV) integrin subunit, serves as a versatile receptor for a range of ligands, including vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, and vWF. Recognizing the sequence R-G-D in various ligands, ITGAV:ITGB3 binds to fractalkine, acting as a coreceptor in CX3CR1-dependent fractalkine signaling. Additionally, it forms essential binding interactions with NRG1, FGF1, FGF2, IGF1, IGF2, IL1B, PLA2G2A, fibrillin-1 (FBN1), and CD40LG, contributing to diverse signaling pathways. Notably, the ITGAV:ITGB3 or ITGAV:ITGB6 complex acts as a receptor for transforming growth factor beta-1 (TGF-beta-1), mediating its release from regulatory Latency-associated peptide (LAP) and playing a crucial role in TGF-beta-1 activation. Furthermore, ITGAV:ITGB5 functions as a receptor for Adenovirus type C during microbial infection. The integrative and multifunctional nature of Integrin alpha V beta 3 underscores its pivotal role in mediating diverse cellular responses and signaling cascades.

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

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