

# Active Recombinant Full Length Human ITGAL Protein, C-Flag-tagged

**Cat. No.** ITGAL-168HFL    **Lot. No.** (See product label)

| SPECIFICATION           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human ITGAL Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | ITGAL encodes the integrin alpha L chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form the integrin lymphocyte function-associated antigen-1 (LFA-1), which is expressed on all leukocytes. LFA-1 plays a central role in leukocyte intercellular adhesion through interactions with its ligands, ICAMs 1-3 (intercellular adhesion molecules 1 through 3), and also functions in lymphocyte costimulatory signaling. Two transcript variants encoding different isoforms have been found for this gene. |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-activity</b>     | Far-Western blot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Molecular Mass</b>   | 126.1 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>AA Sequence</b>      | MKDSCITVMAMALLSGFFFFAPASSYNLDVRGARSFSPPRAGRHFGRVQLQVGNGV<br>IVGAPGEGNSTGSL YQCQSGTGHCLPVTLRGSNYTSKYLGMTLATDPTDGSILACD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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PGLSRTCDQNTYLSGLCYLFRQNLQGPM LQGRPGFQECIKGNVDLVFLFDGSMSL  
 QPDEFQKILDFMKDVMKKLSNTSYQFAAVQFSTSYKTEFDFSD YVKRKDPDALLKH  
 VKHMLLLTNTFGAINYVATEVFREELGARPDATKVLIIITDGEATDSGNIDAAKDII RYII  
 GIGKHFQTKESQETLHKFASKPASEFVKILDTFEKLDLFTTELQKKIYVIEGTSKQDLT  
 SFNMELS SSGISADLSRGHAVVGAVGAKDWAGGFLDLKADLQDDTFIGNEPLTPEV  
 RAGYLGTYVTWLPSRQKTSLL ASGAPRYQHMGRVLLFQEPQGGGHWSQVQTIHG  
 TQIGSYFGGELCGVDVDQDGETELLIGAPLFYGEQR GGRVFIYQRRQLGFEEVSE  
 LQGDPGYPLGRFGEAITALTDINGDGLVDVAVGAPLEEQGAVYIFNGRHGG LSPQP  
 SQRIEGTQVLSGIQWFGRSIHGVKDLEGDGLADVAVGAESQMIVLSSRPVDMVTL  
 MSFSPAEIP VHEVECSYSTSNKMKEGVNITICFQIKSLIPQFQGRLVANLTYTLQLDG  
 HRTRRRGLFPGGRHELRRNIA VTTSMSCTDFS FHPVCVQDLISPINVS LNFS LWEE  
 EGTPRDQRAQGKDIPPILRPSLHSETWEIPFEKN CGEDKKCEANLRVSFSPARSRA  
 LRLTAFASLSVELSLSNLEEDAYWVQLDLHFPPGLSFRKVEMLKPHSQ IPVSCEELP  
 EESRLLSRALSCNVSSPIFKAGHSVALQMMFNTLVNSSWGDVELHANVTCNNEDS  
 DLLED NSATTIIPILYPINILIQDQEDSTLYVSFTPKGPKIHQVKHMYQVRIQPSIHDHNI  
 PTLEAVVGVPQPPS EGPITHQWSVQMEPPVPCHYEDLERLPDAAEPCLPGALFRC  
 PVVFRQEILVQVIGTLELVGEIEASSMFS LCSSLSISFNSSKHFHLYGSNASLAQVVM  
 KVDVVEKQMLYLYVLSGIGGLLLLLLLIFIVLYKVGFFKRN  
 LKEKMEAGRGVPNGIPAEDSEQLASGQEAGDPGCLKPLHEKDSESGGGKDTRTRP  
 LEQKLISEEDLAANDILDYKDDDDKV

|                      |                                                                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>        | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <b>Stability</b>     | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>       | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b> | >50 ug/mL as determined by microplate BCA method.                                                                                             |

|                         |                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                                     |
| <b>Protein Families</b> | Druggable Genome, ES Cell Differentiation/IPS, Transmembrane                                                                                                         |
| <b>Protein Pathways</b> | Cell adhesion molecules (CAMs), Leukocyte transendothelial migration, Natural killer cell mediated cytotoxicity, Regulation of actin cytoskeleton, Viral myocarditis |
| <b>Full Length</b>      | Full L.                                                                                                                                                              |

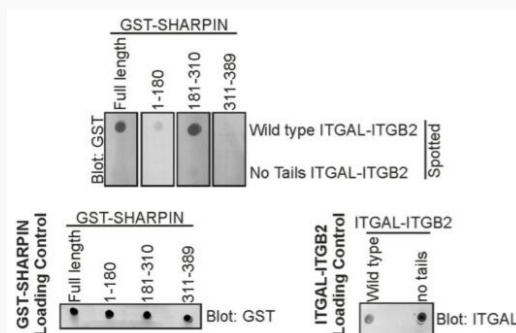
## GENE INFORMATION

|                        |                                                         |
|------------------------|---------------------------------------------------------|
| <b>Gene Name</b>       | ITGAL integrin subunit alpha L [ Homo sapiens (human) ] |
| <b>Official Symbol</b> | ITGAL                                                   |
| <b>Synonyms</b>        | CD11A; LFA-1; LFA1A                                     |
| <b>Gene ID</b>         | 3683                                                    |
| <b>mRNA Refseq</b>     | NM_002209.3                                             |
| <b>Protein Refseq</b>  | NP_002200.2                                             |
| <b>MIM</b>             | 153370                                                  |
| <b>UniProt ID</b>      | P20701                                                  |

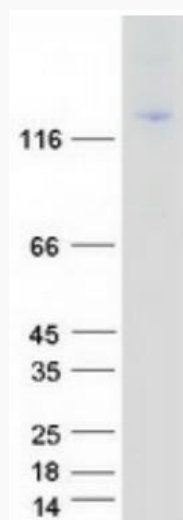
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The UBL domain (181-310) of SHARPIN mediates its binding to cytoplasmic tails of integrin, as analyzed by Far-Western of GST-SHARPIN (fulllength or fragments) binding to full-length ITGALITGB2 or ITGAL-ITGB2 lacking both cytoplasmic tails. Loading controls for GST-SHARPIN (full-length or fragments) and both ITGAL-ITGB2s are shown.



Coomassie blue staining of purified ITGAL protein.