Integrin Beta-1 (ITGB1) ELISA Kit for Pig

PRODUCT OVERVIEW

Product Name	Integrin beta-1 (ITGB1), ELISA Kit
Full Product Name	Pig Integrin beta-1 ELISA Kit
Product Gene Name	ITGB1 elisa kit
Product Synonym Names	Integrin beta-1; Fibronectin receptor subunit beta; VLA-4 subunit beta; ITGB1; CD29
Species Reactivity	Pig
Preparation and Storage	For long term storage, please store the entire kit at -20 degree C.
Molecular Weight	88,266 Da
3D Structure	ModBase 3D Structure for Q9GLP0
Related Product Information for ITGB1 elisa kit	MBS2880904 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Integrin beta-1 (ITGB1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing ITGB1. The ELISA analytical biochemical technique of the MBS2880904 kit is based on ITGB1 antibody-ITGB1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect ITGB1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, ITGB1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of ITGB1 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ITGB1. It may not necessarily be applicable to this product.

NCBI GI #	47522764
NCBI GeneID	397019
NCBI Accession #	NP_999133.1
UniProt Primary Accession #	Q9GLP0
UniProt Related Accession #	Q9GLP0
GenBank Nucleotide #	NM_213968.1
NCBI Official Full Name	integrin beta-1
NCBI Official Symbol	ITGB1
NCBI Official Synonym Symbols	CD29
UniProt Protein Name	Integrin beta-1
UniProt Synonym Protein Names	Fibronectin receptor subunit beta; VLA-4 subunit beta; CD_antigen: CD29
Protein Family	Integrin
UniProt Gene Name	ITGB1
UniProt Entry Name	ITB1_PIG

NCBI Protein Information	integrin beta-1
UniProt Comments for ITGB1	Integrins alpha-1/beta-1, alpha-2/beta-1, alpha-10/beta-1 and alpha-11/beta-1 are receptors for collagen. Integrins alpha-1/beta-1 and alpha-2/beta-2 recognize the proline-hydroxylated sequence G-F-P-G-E-R in collagen. Integrins alpha-2/beta-1, alpha-3/beta-1, alpha-4/beta-1, alpha-5/beta-1, alpha-8/beta-1, alpha-10/beta-1, alpha-11/beta-1 and alpha-V/beta-1 are receptors for fibronectin. Alpha-4/beta-1 recognizes one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. Integrin alpha-5/beta-1 is a receptor for fibrinogen. Integrin alpha-1/beta-1, alpha-2/beta-1, alpha-6/beta-1 and alpha-7/beta-1 are receptors for lamimin. Integrin alpha-4/beta-1 is a receptor for VCAM1 and recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-9/beta-1 is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin. Integrin alpha-3/beta-1 is a receptor for epiligrin, thrombospondin and CSPG4. Integrin alpha-3/beta-1 provides a docking site for FAP (seprase) at invadopodia plasma membranes in a collagen-dependent manner and hence may participate in the adhesion, formation of invadopodia and matrix degradation processes, promoting cell invasion. Alpha-3/beta-1 may mediate with LGALS3 the stimulation by CSPG4 of endothelial cells migration. Integrin alpha-V/beta-1 is a receptor for vitronectin. Beta-1 integrins recognize the sequence R-G-D in a wide array of ligands. When associated with alpha-7/beta-1 integrin, regulates cell adhesion and laminin matrix deposition. Involved in promoting endothelial cell motility and angiogenesis. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process and the formation of mineralized bone nodules. May be involved in up-regulation of the activity of kinases such as PKC via binding to KRT1. Together with KRT1 and RACK1, serves as a platform for SRC activation or inactivation (). Is involved in rejection of pig-to-human tissue xenografts. Plays a mechanistic adhesive role during telophase, required for the successful completion of cytokinesis. ITGA4:ITGB1 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling (). ITGA4:ITGB1 and ITGA5:ITGB1 bind to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (). ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 ().
Research Articles on ITGB1	**1.** The results suggested that the effect of G allele of integrin beta1 gene on litter size is significant in Large White and Landrace.
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