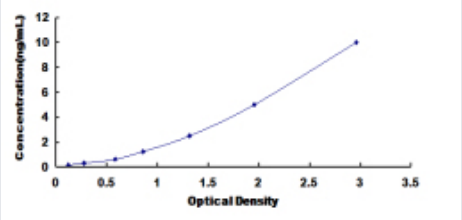
Integrin Alpha 2 (ITGa2) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Integrin Alpha 2 (ITGa2), ELISA Kit
Full Product Name	Human Integrin Alpha 2 (ITGa2) ELISA Kit
Product Gene Name	ITGa2 elisa kit
Product Synonym Names	CD49b; BR; GPIa; VLA-2; VLAA2; Platelet membrane glycoprotein Ia; Alpha 2 Subunit Of VLA-2 Receptor; Very Late Activation Proteins 2 Receptor; Collagen receptor; VLA-2 alpha
Species Reactivity	Human
Assay Type	Double-antibody Sandwich
Samples	Tissue Homogenates, Cell Lysates, Cell Culture Supernates and Other Biological Fluids
Detection Range	0.156-10ng/mL
Sensitivity	< 0.055ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Integrin Alpha 2 (ITGa2). No significant cross-reactivity or interference between Integrin Alpha 2 (ITGa2) and analogues was observed.
Preparation and Storage	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Molecular Weight	129,295 Da
OMIM	X17033 mRNA
3D Structure	ModBase 3D Structure for P17301
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Application	Enzyme-linked immunosorbent assay for Antigen Detection.
Intra-assay Precision (Precision within an assay)	3 samples with low, middle and high level Integrin Alpha 2 (ITGa2) were tested 20 times on one plate, respectively.
Inter-assay Precision (Precision between assays)	3 samples with low, middle and high level Integrin Alpha 2 (ITGa2) were tested on 3 different plates, 8 replicates in each plate.
CV(%) =	SD/meanX100
Intra-Assay	CV<10%
Inter-Assay	CV<12%
ISO Certification	Manufactured in an ISO 9001:2008 and ISO 13485:2003 Certified Laboratory.

Related Product Information for ITGa2 elisa kit	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Integrin Alpha 2 (ITGa2). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Integrin Alpha 2 (ITGa2). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Integrin Alpha 2 (ITGa2), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Integrin Alpha 2 (ITGa2) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of ITGa2 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.
Searchable Terms for ITGa2 purchase	MBS2703042 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Integrin Alpha 2 (ITGa2) 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 ITGa2. The ELISA analytical biochemical technique of the MBS2703042 kit is based on ITGa2 antibody-ITGa2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect ITGa2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, ITGa2. 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(%).



Typical Testing Data/Standard Curve (for reference only) of ITGa2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ITGa2. It may not necessarily be applicable to this product.

NCBI GI #	116295258
NCBI GeneID	3673
NCBI Accession #	NP_002194.2
UniProt Primary Accession #	P17301
UniProt Secondary Accession #	Q14595
UniProt Related Accession #	P17301
GenBank Nucleotide #	NM_002203.3
NCBI Official Full Name	integrin alpha-2
NCBI Official Synonym Full Names	integrin subunit alpha 2
NCBI Official Symbol	ITGA2
NCBI Official Synonym Symbols	BR; GPIa; CD49B; HPA-5; VLA-2; VLAA2
UniProt Protein Name	Integrin alpha-2
UniProt Synonym Protein Names	CD49 antigen-like family member B; Collagen receptor; Platelet membrane glycoprotein Ia; GPIa; VLA-2 subunit alpha; CD_antigen: CD49b
Protein Family	Integrin
UniProt Gene Name	ITGA2

UniProt Synonym Gene Names	CD49B; GPIa
NCBI Protein Information	integrin alpha-2
NCBI Summary for ITGa2	This gene encodes the alpha subunit of a transmembrane receptor for collagens and related proteins. The encoded protein forms a heterodimer with a beta subunit and mediates the adhesion of platelets and other cell types to the extracellular matrix. Loss of the encoded protein is associated with bleeding disorder platelet-type 9. Antibodies against this protein are found in several immune disorders, including neonatal alloimmune thrombocytopenia. This gene is located adjacent to a related alpha subunit gene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2012]
UniProt Comments for ITGa2	Integrin alpha-2/beta-1 is a receptor for laminin, collagen, collagen C-propeptides, fibronectin and E-cadherin. It recognizes the proline-hydroxylated sequence G-F-P-G-E-R in collagen. It is responsible for adhesion of platelets and other cells to collagens, modulation of collagen and collagenase gene expression, force generation and organization of newly synthesized extracellular matrix.(Microbial infection) Integrin ITGA2:ITGB1 acts as a receptor for human rotavirus A (PubMed:12941907). Integrin ITGA2:ITGB1 acts as a receptor for human echoviruses 1 and 8 (PubMed:8411387).
Research Articles on ITGa2	**1.** The allele combination of CGC from hOGG1, ITGA2 and XPD polymorphisms was significantly associated with increased odds of nasopharyngeal carcinoma.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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