

## Integrin Alpha 2 (ITGa2) Active Protein | ITGa2 active protein

Active Integrin Alpha 2 (ITGa2)

|                               |                       |                                                     |
|-------------------------------|-----------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA161836</b> | HOST<br><b>E Coli</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|-----------------------|-----------------------------------------------------|

### PRODUCT SYNONYMS

Integrin Alpha 2 (ITGa2); Active Integrin Alpha 2 (ITGa2); Integrin Alpha 2; 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 alpha4; ITGa2 active protein

### PRODUCT SPECIFICATIONS

|                                                  |                                                                                              |
|--------------------------------------------------|----------------------------------------------------------------------------------------------|
| Host                                             | E Coli                                                                                       |
| Purity/Purification                              | Greater than 95% by SDS-PAGE                                                                 |
| Form/Format                                      | Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300. |
| Sequence                                         | Gln212~Asn 370                                                                               |
| Applicable Applications for ITGa2 active protein | Activity Assay, Cell Culture                                                                 |
| Species                                          | Mouse                                                                                        |
| Expression System                                | Prokaryotic expression                                                                       |
| Tag                                              | N-terminal His and GST Tag                                                                   |
| Endotoxin Level                                  | <1.0EU per 1ug (determined by the LAL method)                                                |
| Isoelectric Point                                | 4.8                                                                                          |
| Research Area                                    | Signal transduction, CD & Adhesion molecule, Tumor immunity                                  |
| Preparation and Storage                          | Store at 2-8 degree C for one month, -80 degree C for 12 months                              |

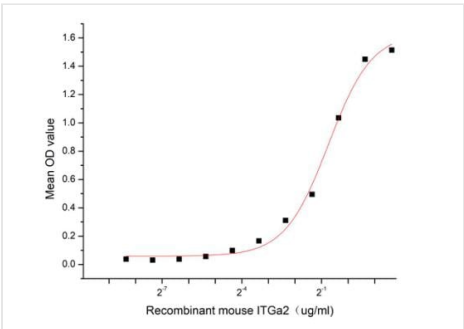


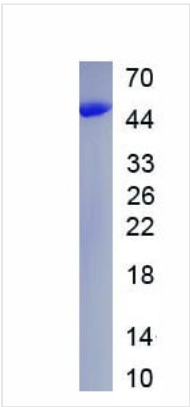
Figure 1. The binding activity of recombinant mouse ITGa2 and recombinant mouse ITGb1

Bioactivity

Integrin Alpha 2 (ITGa2), also known as CD49b, is one of twelve integrin family alpha subunits which is pivotal to sustain the integrity of the cytoskeletal-extracellular matrix linkage among all cell adhesion receptors. Some research had shown that ITGa2 is a cell transmembrane receptor that assists the adhesion of other several cells to the extracellular matrix. In addition, changes of ITGa2 expression affect the immune microenvironment and immunogenicity of tumors. Integrin Beta 1 (ITGb1) has been identified as an interactor of ITGa2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse ITGa2 and recombinant mouse ITGb1. Briefly, ITGa2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to ITGb1-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-ITGa2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant mouse ITGa2 and recombinant mouse ITGb1 was shown in Figure 1, the EC50 for this effect is 0.6 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

|                                                    |                 |
|----------------------------------------------------|-----------------|
| Product Categories/Family for ITGa2 active protein | Active proteins |
|----------------------------------------------------|-----------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                       |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 41054731                                                                                                                                                              |
| NCBI GeneID                      | 16398                                                                                                                                                                 |
| NCBI Accession #                 | NP_032422.2                                                                                                                                                           |
| NCBI GenBank Nucleotide #        | NM_008396.2                                                                                                                                                           |
| UniProt Accession #              | Q62469; Q62163; Q6P1C7                                                                                                                                                |
| Molecular Weight                 | 128,955 Da                                                                                                                                                            |
| NCBI Official Full Name          | integrin alpha-2                                                                                                                                                      |
| NCBI Official Synonym Full Names | integrin alpha 2                                                                                                                                                      |
| NCBI Official Symbol             | Itga2                                                                                                                                                                 |
| NCBI Official Synonym Symbols    | DX5; CD49B                                                                                                                                                            |
| NCBI Protein Information         | integrin alpha-2; CD49 antigen-like family member B; GPIa; VLA-2 receptor, alpha 2 subunit; VLA-2 subunit alpha; collagen receptor; platelet membrane glycoprotein Ia |
| UniProt Protein Name             | Integrin alpha-2                                                                                                                                                      |
| UniProt Gene Name                | Itga2                                                                                                                                                                 |
| UniProt Synonym Gene Names       | GPIa                                                                                                                                                                  |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/integrin-alpha-2-itga2/161836>