

## Integrin alpha 2 beta 1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P700753
Synonyms:	$\alpha 2\beta 1$ ; ITGA2&ITGB1; ITGA2; ITGB1;
Species:	Mouse
Source:	HEK293
Accession:	Q62469 (Y27-T1129)&P09055-1 (Q21-D728)
Gene ID:	16398
Molecular Weight:	128-138 kDa(ITGA2) & 105-115 kDa(ITGB1)

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu\text{m}$ filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ $\mu\text{g}$ , determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH <sub>2</sub> O.
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	<p>The Integrin alpha-2/beta-1 protein serves as a pivotal collagen receptor, playing a central role in platelet and cell adhesion to collagens, as well as in the modulation of collagen and collagenase gene expression. Beyond its collagen-related functions, it contributes to force generation and the organization of newly synthesized extracellular matrix. Moreover, Integrin alpha-2/beta-1 acts as a versatile receptor, recognizing laminins, collagen C-propeptides, and E-cadherin. In embryogenesis, mice with a null mutation in the alpha-2 subunit face early mortality, underscoring the critical role of Integrin alpha-2/beta-1 in developmental processes. Structurally, it forms a heterodimeric complex, with the alpha-2 subunit associating with beta-1. The protein further interacts with HPS5 and RAB21, revealing additional dimensions to its regulatory and signaling functions. Overall, Integrin alpha-2/beta-1 emerges as a key player in mediating cellular interactions with the extracellular matrix and influencing essential developmental processes.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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