

For Research Use Only

Recombinant Human B7-2/CD86 protein (Myc Tag, His Tag)



Catalog Number: Eg0059

Basic Information	Species: Human EC50: 13-52 ng/mL	Purity: >95 %, SDS-PAGE	Tag: C-Myc, His
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Technical Specifications	Purity: >95 %, SDS-PAGE Endotoxin Level: <0.1 EU/ μ g protein, LAL method Source: HEK293-derived Human B7-2 protein Leu26-Pro247 (Accession# P42081) with a Myc tag and a His tag at the C-terminus. GeneID: 942 Accession: P42081 Predicted Molecular Mass: 27.9 kDa SDS-PAGE: 40-70 kDa, reducing (R) conditions Formulation: Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.
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Biological Activity	Immobilized Human B7-2 (Myc tag, His tag) at 2 μ g/mL (100mL/well) can bind Human CTLA-4 (hFc tag, Myc tag, His tag) with a linear range of 13-52 ng/mL.
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Storage and Shipping	Storage: It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">• Until expiry date, -20°C to -80°C as lyophilized proteins.• 3 months, -20°C to -80°C under sterile conditions after reconstitution.
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	Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.
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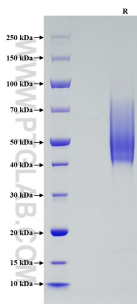
Reconstitution	Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.
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Background	CD86 (also known as B7-2) is a costimulatory molecule belonging to the immunoglobulin (Ig) superfamily. CD86 is primarily expressed on antigen-presenting cells (APCs), including B cells, dendritic cells, and macrophages. CD86 has strong structural similarity with another B7 family molecule, CD80 (B7-1). CD86 and CD80 are the ligands for two proteins at the cell surface of T cells, CD28 antigen and cytotoxic T-lymphocyte antigen 4 (CTLA-4). Binding of CD86 or CD80 with CD28 antigen is a costimulatory signal for T cell activation, proliferation, and cytokine production. Binding of CD86 or CD80 with CTLA-4 negatively regulates T cell activation and diminishes the immune response. However, CD86 and CD80 bind to CTLA-4 with higher affinity than CD28. Defects in CTLA-4-mediated transendocytosis of CD86 are associated with autoimmunity.
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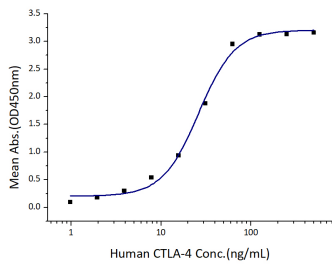
References	<ol style="list-style-type: none">1. Bolandi N, et al. (2021). Int J Mol Sci. 22(19):107192. Yokozei H, et al. (1996). J Invest Dermatol. 106(1):147-1533. Baravalle G, et al. (2011). J Immunol. 187(6):2966-2973.4. Collins M, et al. (2005). Genome Biol. 6(6):2235. Greaves P, et al. (2013). Blood. 121(5):734-7446. Kennedy A, et al. (2022). Nat Immunol. 23(9):1365-1378
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Synonyms	CD86, Activation B7 2 antigen, Activation B7-2 antigen, B7 2, B70
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Selected Validation Data



Purity of Recombinant human B7-2 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.



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