

DESCRIPTION

Species Reactivity	Cynomolgus Monkey
Specificity	Detects cynomolgus monkey B7-2/CD86 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 1029808
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived cynomolgus monkey B7-2/CD86 protein Leu20-His239 Accession # XP_005548057
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

B7-2, also known as CD86, B70, and ETC-1, is a 60-100 kDa variably glycosylated protein in the B7 family. B7 family members are transmembrane cell surface molecules that play important roles in immune activation and the maintenance of immune tolerance (1, 2). Within the ECD, cynomolgus B7-2 shares 96%, 57%, and 56% amino acid sequence identity with human, mouse and rat B7-2, respectively. B7-2 is highly expressed on activated antigen presenting cells (APC), e.g. B cells, dendritic cells, and monocytes (2-5), as well as on vascular endothelial cells (6). B7-2 and the closely related B7-1/CD80 exhibit overlapping but distinct functional properties. Their binding to CD28, which is constitutively expressed on T cells, enhances T cell receptor signaling and also provides TCR-independent co-stimulation (3, 5, 7-9). B7-1 and B7-2 additionally bind the CD28-related protein, CTLA-4, which is up-regulated and recruited to the immunological synapse (IS) at the onset of T cell activation (3, 5, 7, 8). CTLA-4 ligation inhibits the T cell response and supports regulatory T cell function (10). B7-2 is expressed earlier than B7-1 following APC activation (4), and both proteins bind with higher affinity to CTLA-4 than to CD28 (8). B7-2 promotes the stabilization of CD28 in the IS, while B7-1 is primarily responsible for promoting CTLA-4 recruitment and accumulation in the IS (11). The relative participation of B7-1 and B7-2 in T cell co-stimulation can also alter the Th1/Th2 bias of the immune response (12). Both B7-1 and B7-2 serve as cellular receptors for B species adenoviruses (13).

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