

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VISTA/B7-H5/PD-1H in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse VISTA/B7-H5/PD-1H is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 730804
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human VISTA/B7-H5/PD-1H Phe33-Ala194 Accession # Q9H7M9
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

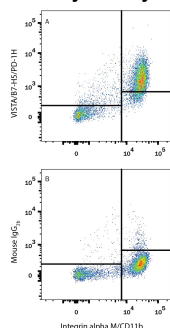
APPLICATIONS

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.

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

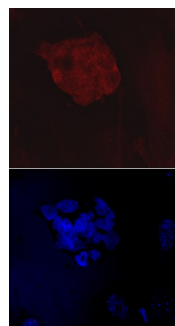
DATA

Flow Cytometry



Detection of VISTA/B7-H5/PD-1H in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) were stained with (A) Mouse Anti-Human VISTA/B7-H5/PD-1H Monoclonal Antibody (Catalog # MAB71261) or (B) Mouse IgG_{2B} Isotype Control (Catalog # MAB0041) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B) and Mouse Anti-Human Integrin αM/CD11b PE-conjugated Monoclonal Antibody (Catalog # FAB16991P). View our protocol for [Staining Membrane-associated Proteins](#).

Immunocytochemistry



VISTA/B7-H5/PD-1H in BG01V Human Embryonic Stem Cells. VISTA/B7-H5/PD-1H was detected in immersion fixed BG01V human embryonic stem cells using Mouse Anti-Human VISTA/B7-H5/PD-1H Monoclonal Antibody (Catalog # MAB71261) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Platelet Receptor Gi24, also known as VISTA (V-domain Ig suppressor of T cell activation), B7-H5, B7H5, Dies1 (Differentiation of ESC-1), SISP1 and C10orf54, is a 55-65 kDa member of the Ig superfamily. It is a transmembrane molecule expressed in bone, on embryonic stem cells (ESCs), and on tumor cell surfaces. On ESCs, Gi24 appears to positively interact with BMP-4, potentiating BMP signaling and the transition from an undifferentiated to a differentiated state. On tumor cells, Gi24 both promotes MT1-MMP expression and activity and serves as a substrate for MT1-MMP. This increases the potential for cell motility. Mature human Gi24 contains a 162 aa extracellular region with one V-type Ig-like domain and a 96 aa cytoplasmic domain. Human Gi24 undergoes proteolytic cleavage by MT1-MMP, generating a soluble 30 kDa extracellular fragment plus a 25-30 kDa membrane-bound fragment. Over aa 33-194, human Gi24 shares 70% and 67% aa identity with mouse and rat Gi24, respectively.