

Technical Data Sheet

BV786 Mouse Anti-Human VISTA

Product Information

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|--------------------|---|
| Material Number: | 749640 |
| Size: | 50 µg |
| Clone: | MIH65.rMAb (also known as MIH65) |
| Alternative Name: | VSIR; B7-H5; B7H5; C10orf54; DD1alpha; GI24; SISP1 |
| Reactivity: | Human (Tested in Development) |
| Isotype: | Mouse IgG1, κ |
| Immunogen: | Human VISTA Transfected Cell Line |
| Application: | Flow cytometry (Qualified) |
| Concentration: | 0.2 mg/ml |
| Storage Buffer: | Aqueous buffered solution containing ≤0.09% sodium azide. |
| Regulatory Status: | RUO |

Description

The MIH65.rMAb is a recombinant monoclonal antibody derived from MIH65 hybridoma cells. MIH65.rMAb specifically binds to human V-domain Ig suppressor of T cell activation (VISTA) like the conventional MIH65 antibody and performs like the MIH65 antibody when used to stain cells and analyze them by flow cytometry. VISTA is also known as B7-H5 (B7H5), PD-1H, DD1alpha (DD1α), chromosome 10 open reading frame 54 (C10orf54), Platelet Receptor Gi24 (GI24), or Stress induced secreted protein 1 (SISP1). VISTA is a 55-65 kDa single-pass, type I transmembrane glycoprotein that is encoded by VSIR (V-set immunoregulatory receptor) which belongs to the V-set domain containing family within the Ig superfamily. VISTA is primarily expressed on precursors and mature cells of the hematopoietic lineage including, monocytes, macrophages, neutrophils, dendritic cells (DC), T cells, regulatory T cells (Treg), and natural killer (NK) cells but not B cells. VISTA functions as an inhibitory regulator that can suppress T cell proliferation and cytokine production.

The antibody was conjugated to BD Horizon™ BV786 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 786-nm. BD Horizon BV786 can be excited by the violet laser and detected in a filter used to detect Cy™7-like dyes (eg, 780/60-nm filter).

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with BD Horizon BV786 under optimal conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|-------------------------------------|-----------|-------|
| 554656 | Stain Buffer (FBS) | 500 mL | |
| 554657 | Stain Buffer (BSA) | 500 mL | |
| 563794 | Brilliant Stain Buffer | 100 Tests | |
| 555899 | Lysing Buffer | 100 mL | |
| 349202 | Lysing Solution 10X Concentrate | 100 NA | |
| 564219 | Human BD Fc Block™ | 50 mg | |
| 563330 | BV786 Mouse IgG1, κ Isotype Control | 50 µg | X40 |

Product Notices

1. This antibody was developed for use in flow cytometry.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
9. BD Horizon Brilliant Violet 786 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
10. Cy is a trademark of GE Healthcare.

References

Bharaj P, Chahar HS, Alozie OK, et al. Characterization of programmed death-1 homologue-1 (PD-1H) expression and function in normal and HIV infected individuals.. PLoS ONE. 2014; 9(10):e109103.

Wang L, Rubinstein R, Lines JL, et al. VISTA, a novel mouse Ig superfamily ligand that negatively regulates T cell responses.. J Exp Med. 2011; 208(3):577-92.

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