Technical Data Sheet

V450 Mouse anti-Human IL-17F

Product Information

Material Number: 561337
Alternate Name: Interleukin-17F; cytokine ML-1; ML-1; IL-24
Size: 100 tests
Vol. per Test: 5 µl
Clone: O33-782
Immunogen: Human IL-17F
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Human
Storage Buffer: Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The O33-782 monoclonal antibody specifically binds to Interleukin-17F (IL-17F). IL-17F is a member of the IL-17 family of cytokines. IL-17F is encoded by the IL17F gene located in chromosome 6 (location: 6p12). IL-17F is a proinflammatory cytokine that is produced by activated T cells including differentiated CD4+ T helper 17 (Th17) cells. Activated Th17 cells can express disulfide-linked IL-17F and IL-17A homodimers as well as IL-17A/IL-17F heterodimers. These IL-17 dimers act by binding to and signaling through IL-17 receptor complexes (IL-17R). IL-17R are comprised of transmembrane IL-17RA and IL-17RC protein subunits that are expressed by a variety of target cells including epithelial and endothelial cells, keratinocytes, fibroblasts, and granulocytes. IL-17F can induce target cells to produce proinflammatory cytokines such as IL-1β, IL-6, G-CSF, GM-CSF, and TNF and chemokines including CXCL1/Gro-α, CXCL2/Gro-β, and CXCL8/IL-8 that attract and activate leukocytes, eg, neutrophils. Th17 and other IL-17F-producing cells play protective roles in the clearance of extracellular pathogens, including bacteria and fungi. IL-17F can also play adverse roles in inflammation associated with asthma and autoimmune diseases.
Preparation and Storage
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with BD Horizon™ V450 under optimum conditions, and unreacted BD Horizon™ V450 was removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

| Intracellular staining (flow cytometry) | Routinely Tested |

Recommended Assay Procedure:
The antibody is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon™ V450 can be used in place of Pacific Blue™ conjugates.

This antibody conjugate is suitable for intracellular staining of human peripheral blood mononuclear cells using BD Cytofix/Cytoperm™ reagents or BD™ Phosflow fixation and permeabilization buffers (Fix buffer I with Perm/Wash Buffer I, Perm Buffer II, or Perm Buffer III).

Suggested Companion Products

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
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<tr>
<td>554714</td>
<td>BD Cytofix/Cytoperm™ Fixation/Permeabilization Kit</td>
<td>250 tests</td>
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<td>554724</td>
<td>Protein Transport Inhibitor (Containing Monensin)</td>
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<td>341654</td>
<td>PerCP-Cy5.5 Mouse anti-Human CD4</td>
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<td>FITC Mouse Anti-Human IFN-γ</td>
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<td>B27</td>
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<td>560490</td>
<td>Alexa Fluor® 647 Mouse anti-Human IL-17A</td>
<td>100 tests</td>
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<td>560373</td>
<td>V450 Mouse IgG1, κ Isotype Control</td>
<td>0.1 mg</td>
<td>MOPC-21</td>
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<td>557885</td>
<td>Perm/Wash Buffer I</td>
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<tr>
<td>558050</td>
<td>Perm Buffer III</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
3. BD Horizon™ V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. An isotype control should be used at the same concentration as the antibody of interest.
6. 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.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

References
Fouser LA, Wright JF, Dunussi-Joannopoulos K, Collins M. Th17 cytokines and their emerging roles in inflammation and autoimmunity. ImmunoL Rev. 2008; 226:87-102. (Biology)
Shen F, Galfin SL. Structure-function relationships in the IL-17 receptor: implications for signal transduction and therapy. Cytokine. 2008; 41(2):92-104. (Biology)
Wright JF, Bennett F, Li B, et al. The human IL-17F/IL-17A heterodimeric cytokine signals through the IL-17RA/IL-17RC receptor complex. J Immunol. 2008; 181(4):2799-2805. (Biology)