Technical Data Sheet

BV711 Mouse Anti-Human CD134

**Product Information**

**Material Number:** 563664  
**Alternate Name:** OX40; TNFRSF4; TXGP1L; OX40L Receptor  
**Size:** 50 Tests  
**Vol. per Test:** 5 µl  
**Clone:** ACT35 (also known as Ber-ACT35)  
**Immunogen:** Human HUT 102  
**Isotype:** Mouse IgG1, κ  
**Reactivity:** QC Testing: Human  
**Workshop:** IV A107, V BP048, V A068, VI C-31  
**Storage Buffer:** Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The ACT35 monoclonal antibody specifically binds to CD134 which is also known as OX40. The 35 kDa CD134 polypeptide is encoded by the TNFRSF4 gene. CD134 is a type I integral membrane glycoprotein and member of the tumor necrosis factor/nerve growth factor receptor (TNFR/NGFR) family. CD134 is expressed on activated T lymphocytes, hematopoietic precursor cells and fibroblasts. CD134 functions as a T cell costimulatory receptor when bound by OX40 Ligand/TNFSF4 that is expressed by antigen presenting cells. CD134 thereby plays roles in T-cell activation as well as the regulation of differentiation, proliferation or apoptosis of normal and malignant lymphoid cells. Analysis of the nucleotide sequence of the human TNFRSF4 cDNA reveals strong homology with the rat Tnfrsf4 cDNA sequence. OX40 was clustered as CD134 in the Sixth International Workshop on Human Leukocyte Differentiation Antigens.

The antibody was conjugated to BD Horizon BV711 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 711-nm. BD Horizon BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

**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™ BV711 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV711 were removed.

**Application Notes**

**Application**

Flow cytometry  
**Routinely Tested**

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**Flow cytometric analysis of CD134 expression on stimulated human peripheral blood lymphocytes.**

Phytohemagglutinin-stimulated (PHA; Sigma L-1668; 3 days) peripheral blood mononuclear cells were stained with either BD Horizon™ BV711 Mouse Anti-Human CD134 antibody (Cat. No. 563664; solid line histogram) or BD Horizon™ BV711 Mouse IgG1, κ Isotype Control (Cat. No. 563044; dashed line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphoblasts. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.
Recommended Assay Procedure:
For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes 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. 563794/566349) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

Suggested Companion Products

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<th>Name</th>
<th>Size</th>
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<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>563044</td>
<td>BV711 Mouse IgG1, k Isotype Control</td>
<td>50 µg</td>
<td>X40</td>
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<tr>
<td>554657</td>
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<td>563794</td>
<td>Brilliant Stain Buffer</td>
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<tr>
<td>566385</td>
<td>Brilliant Stain Buffer Plus</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).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
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. BD Horizon Brilliant Violet 711 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.
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. Cy is a trademark of GE Healthcare.

References