Antibodies

Anti-Human CD154 (CD40L) Antibody, Clone 5C8

Mouse monoclonal IgG2a antibody against human CD154 (CD40L), unconjugated

Catalog #100-1352 | 500 µg | 0.5 mg/mL

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Product Description

This mouse monoclonal antibody (clone 5C8) reacts with human CD154 (CD40L), a member of the tumor necrosis factor alpha (TNF-α) superfamily with a molecular weight of 39 kDa. CD154, also known as CD40L, is a type II transmembrane glycoprotein that is predominantly expressed on activated T-cells but is also found in NK cells, mast cells, basophils, and eosinophils. CD154 (CD40L) binds to CD40, a costimulatory protein found on antigen-presenting cells, such as B cells, monocytes, dendritic cells, and fibroblasts. The CD154 (CD40L)-CD40 interaction induces the activation and proliferation of B-cells, allowing for antibody production, isotype switching, and B-cell memory development. CD154 (CD40L) expression is upregulated in inflammatory bowel disease, suggesting its role in regulating pathogenic cytokine production in T-cells. In vitro studies also demonstrate that the binding of CD40 to its ligand induces endothelial cell activation, highlighting its immunopathogenic role. The CD154 (CD40L), clone 5C8 antibody has been reported to block the interaction and ligation of CD40 with its ligand.

Target Antigen Name:	CD154
Alternative Names:	CD40L, gp39, Ly-62, T-BAM, TRAP
Gene ID:	959
Species Reactivity:	Human
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	5C8
Isotype:	IgG2a, kappa
Immunogen:	Human D1.1 T cell line
Conjugate:	Unconjugated

Applications

Verified:	FC
Reported:	FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is 0.06 - 0.12 µg per test. It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

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