

Anti-Mouse CD226 (DNAM-1) Purified *in vivo* PLATINUM™ Functional Grade Monoclonal Antibody

Product Information

Product No.: D392
Clone: 480.1
RRID: AB_2829933
Isotype: Rat IgG2a κ
Storage: 2-8°C

Product Description

Specificity

Clone 480.1 activity is directed against murine CD226 (DNAM-1; PTA-1).

Antigen Distribution

mCD226 is expressed on the surface of differentiated Th1 cells, CD8⁺ T cells, subsets of naïve CD11b⁺ macrophages and NK cells, and activated CD4⁺ cells.

Background

Murine (m) CD226 (DNAM-1; PTA1) is an adhesion molecule involved in intercellular adhesion, lymphocyte signalling, cytotoxicity, and lymphokine secretion mediated by cytotoxic T-lymphocyte and NK cells (Uniprot Q8K4F0)¹. mCD226 is also essential for NK-mediated killing of immature dendritic cells² and acts as an important costimulatory molecule in Th1 cell activation and effector function³.

CD226 binds to PVR (CD155) via its N-terminal Ig-like domain² and with cell surface receptor NECTIN2 (CD112)¹. Based on its similarity to human CD226 (Uniprot Q15762), mCD226 likely competes with PVRIG for NECTIN2 binding.

mCD226 is specifically expressed on the surface of differentiated Th1 cells but not Th2 or Th0 cells³. mCD226 expression is enhanced by Th1 differentiation but down-regulated upon Th2 polarization. *In vivo* treatment with anti-CD226 (clone 10E5) inhibits T cell activation and delays the onset and reduces the severity of Th1-mediated autoimmune disease. Additionally, mCD226 is constitutively expressed on CD8⁺ T cells, subsets of naïve CD11b⁺ macrophages and NK cells, and is up-regulated on activated CD4⁺ cells^{2,3}. mCD226 is a marker for mature T cells².

Known Reactivity Species

Mouse

Format

Purified *in vivo* Functional Grade, *in vivo* PLATINUM™

Immunogen

Th1 polarized T cell clones

Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity

≥98% monomer by analytical SEC, >95% by SDS Page

Endotoxin

<0.5 EU/mg as determined by the LAL method

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

Product Datasheet

www.leinco.com



Storage and Stability

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at $\leq -70^{\circ}\text{C}$. **Avoid Repeated Freeze Thaw Cycles.**

Product Preparation

Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Other Applications Reported in Literature:

FC

Country of Origin

USA

References

1. <https://www.uniprot.org/uniprotkb/Q8K4F0/entry>
2. Seth S, Georgoudaki AM, Chambers BJ, et al. J Leukoc Biol. 86(1):91-101. 2009.
3. Dardalhon V, Schubart AS, et al. J Immunol. 175(3):1558-1565. 2005.
4. He Y, Peng H, Sun R, et al. J Autoimmun. 81:1-12. 2017.

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

410 Axminster Dr, St. Louis, MO 63026

(800) 538-1145

leincoglobal@leinco.com