Leinco Technologies, Inc.
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Anti-Human CXCR2 (Clone 4D1.5.7) - Purified No Carrier Protein

Hybridoma Monoclonal Antibody

Product Information

Product No.:	C3117
Clone:	4D1.5.7
Isotype:	Mouse Mouse IgG2a k
Storage:	Sterile 2-8°C

Product Description

Specificity:
Clone 4D1.5.7 (HB-11495) activity is directed against human CXCR2.

Antigen Distribution:
CXCR2 is expressed on neutrophils, monocytes, subsets of T lymphocytes, endothelial cells, and keratinocytes. CXCR2 is also expressed in brain tissues, particularly neurons in the normal brain. Additionally, dystrophic neurites associated with some senile plaques strongly express CXCR2.

Background:
Chemokines (chemoattractant cytokines) play an important role in immune and cancer cell migration [1], metastasis, leukocyte trafficking to inflammatory sites [2], angiogenesis, neutrophil chemotaxis and activation [3] as well as cutaneous burn wound repair. At least 20 chemokine receptors have been identified, among them CXCR2 (IL-8RB). CXCR2 is an interleukin (IL)-8 (CXCL8) receptor that also binds to the CXC chemokines CXCL1 (GROα), CXCL2, CXCL3, CXCL4, CXCL5 (ENA78), CXCL6, and CXCL7 (NAP-2) [1]. CXCR2 is also activated by MIF (macrophage migration inhibitory factor). Ligand binding occurs via the extracellular N- terminus. CXCR2 can exist as a homodimer or heterodimer with CXCR1 [1]. Many cancers that have poorer patient prognosis are associated with increased CXCR2 expression.

4D1.5.7 (also known as HB-11495) was generated by immunizing mice with 293 cells that express CXCR2 [4]. Hybridomas were selected based on their ability to bind human neutrophils. In flow cytometry assays, 4D1.5.7 bound to cells expressing CXCR2 but not to cells expressing CXCR1. ELISA experiments were subsequently used to identify residues 1-18 of the N-terminal as containing the binding site. Subsequent epitope mapping concluded that 4D1.5.7 recognizes residues 6-10 (FEDFW) of CXCR2 as its binding epitope [2]. 4D1.5.7 can inhibit IL-8 binding to cells expressing CXCR2 by up to 90% and to human neutrophils by up to 50% [4].

Known Reactivity Species:
Human

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

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Product Datasheet

www.leinco.com

Format:
Purified No Carrier Protein

Immunogen:
293 cells expressing CXCR2

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.

Purity
≥90% monomer by analytical SEC and SDS-Page

Storage and Stability
This antibody 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 -80°C. **Avoid Repeated Freeze Thaw Cycles.**

Product Preparation
Purified antibodies are manufactured in an animal free facility using only *in vitro* protein free 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
IHC
ELISA
RIA

Country of Origin
USA

References
1. Korbecki J, Kupnicka P, Chlubek M, et al. Int J Mol Sci. 23(4):2168. 2022.
2. Wu L, Ruffing N, Shi X, et al. J Biol Chem. 271(49):31202-31209. 1996.
3. Xia M, Qin S, McNamara M, et al. Am J Pathol. 150(4):1267-1274. 1997.
4. Chuntharapai A, Lee J, Hébert CA, et al. J Immunol. 153(12):5682-5688. 1994.

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