

Product datasheet for MR222873L4V

OriGene Technologies, Inc.

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Cd244 (NM_018729) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type: Lentiviral Particles

Product Name: Cd244 (NM_018729) Mouse Tagged ORF Clone Lentiviral Particle

Symbol: Cd244

Synonyms: 2B4; C9.1; F730046O15Rik; Ly90; NAIL; NKR2B4; Nmrk; SLAMF4

Mammalian Cell

Selection:

Puromycin

Vector: pLenti-C-mGFP-P2A-Puro (PS100093)

Tag: mGFP

ACCN: NM_018729 **ORF Size:** 1191 bp

ORF Nucleotide

- - -

Sequence:

The ORF insert of this clone is exactly the same as(MR222873).

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This

clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

RefSeq: <u>NM 018729.2</u>, <u>NP 061199.2</u>

 RefSeq Size:
 3758 bp

 RefSeq ORF:
 1194 bp

 Locus ID:
 18106

 UniProt ID:
 Q07763

Cytogenetics: 1 79.52 cM





Gene Summary:

Heterophilic receptor of the signaling lymphocytic activation molecule (SLAM) family; its ligand is CD48. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2. Acts as activating natural killer (NK) cell receptor (PubMed:8326140, PubMed:12734329, PubMed:19648922, PubMed:20962259). Activating function implicates association with SH2D1A and FYN. Downstreaming signaling involves predominantly VAV1, and, to a lesser degree, INPP5D/SHIP1 and CBL. Signal attenuation in the absence of SH2D1A is proposed to be dependent on INPP5D and to a lesser extent PTPN6/SHP-1 and PTPN11/SHP-2. Stimulates NK cell cytotoxicity, production of IFN-gamma and granule exocytosis (PubMed:8326140, PubMed:15169881, PubMed:15998796, PubMed:22683124). Optimal expansion and activation of NK cells seems to be dependent on the engagement of CD244 with CD48 expressed on neighboring NK cells (PubMed:15905190). Regulation of NK cell activity by adapters Sh2d1b and Sh2d1b2 is reported conflictingly (PubMed:16127454, PubMed:16425036). Acts as costimulator in NK activation by enhancing signals by other NK receptors such as NCR3 and NCR1. At early stages of NK cell differentiation may function as an inhibitory receptor possibly ensuring the self-tolerance of developing NK cells (By similarity). Involved in the regulation of CD8(+) T-cell proliferation; expression on activated T-cells and binding to CD488 provides costimulatorylike function for neighboring T-cells (PubMed:11739483). Inhibits inflammatory responses in dendritic cells (DCs) (PubMed:25643613).[UniProtKB/Swiss-Prot Function]