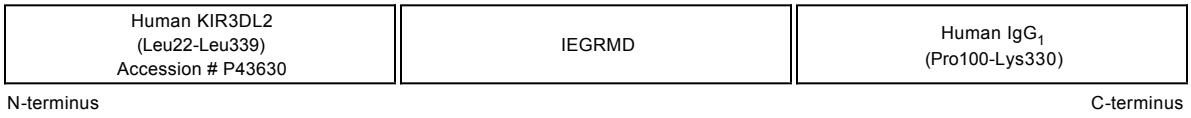
Recombinant Human KIR3DL2/CD158k Fc Chimera

Catalog Number: 2878-KR

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived



N-terminal Sequence Analysis	Leu22
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	61.4 kDa (monomer)

SPECIFICATIONS

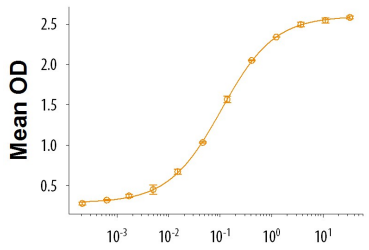
SDS-PAGE	85-90 kDa, reducing conditions
Activity	Measured by its ability to bind HLA on MDA-MB-231 human breast cancer cells. The ED_{50} for this effect is typically 0.06-0.36 µg/mL.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity



Recombinant Human KIR3DL2/CD158k Fc Chimera (Catalog # 2878-KR) binds to MDA-MB-231 human breast cancer cells. The ED_{50} for this effect is typically 0.06-0.36 µg/mL.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

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Catalog Number: 2878-KR

BACKGROUND

KIR3DL2 (also known as 3DL2, p140, CD158k) is a type I transmembrane protein of the p70 family of killer cell Ig-like receptors (KIR). KIR are expressed on $CD56^{dim}$ NK cells and T cell subsets where they participate in identifying normal and abnormal cells and regulating effector functions of the innate immune system (1 - 4). KIR are named for the number of Ig-like domains (2D or 3D) in the extracellular domain (ECD) and whether they have long or short (L, S) cytoplasmic tail. As with other inhibitory KIR, KIR3DL2 has two ITIM domains within its long tail (3). KIR3DL2 is diverse, with twelve alleles identified and as many as five single amino acid (aa) polymorphisms found in a single individual (4 - 6). Unlike most other KIR, gene transcripts of KIR3DL2 are expressed by all individuals (4). KIR3DL2 is present on the cell surface as a disulfide-linked homodimer of two 70 kDa, 434 aa subunits (4). KIR3DL2 has shown peptide-specific binding to some HLA-A antigens, including A3 and A11 (4, 7, 8). It also binds the abnormally folded HLA-B27 homodimer found in spondylarthritides, but not the normal heterodimer of HLA-B27 with β2-microglobulin (9, 10). NK and $CD4^+$ T cells from patients with spondylarthritides show increased $KIR3DL2^+$ expression and this may play a role in disease pathology (10). KIR3DL2 is also a marker for atypical mononuclear (Sezary) cells in the blood of patients with Sezary syndrome, an erythrodermic form of cutaneous T cell lymphoma (11). Human KIR3DL2 ECD shows 88 - 92% aa identity to KIR3DL2 of other primates. KIR receptors have no structural orthologs in non-primates, although mouse Ly-49 proteins are functional orthologs (3). KIR are highly related. The closest relative, KIR3DL1 shows 86% aa identity with KIR3DL2 within the ECD.

References:

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bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
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