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Anti-OSMR Reference Antibody (vixarelimab)

Recombinant Antibody
Catalog # APR10201

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	Q99650
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG4SP
Calculated MW	110509

Additional Information

Target/Specificity	OSMR
Endotoxin	
Conjugation	Unconjugated
Expression system	CHO
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Protein Information

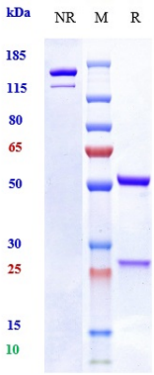
Name	OSMR (HGNC:8507)
Synonyms	OSMRB
Function	Functions as a shared membrane-bound signal-transducing subunit in two distinct receptor complexes, the type II OSM receptor (heterodimer composed of OSMR and IL6ST) and the IL31 receptor complex (heterodimer composed of OSMR and IL31RA) which respectively bind OSM and IL31 (PubMed:15184896, PubMed:15627637, PubMed:8999038). Functionally, OSM signaling via OSMR/IL6ST regulates many processes including cell proliferation, cell differentiation, cytokine production, whereas the IL31 signaling via OSMR/IL31RA is particularly important in skin immunity (PubMed:15184896, PubMed:8999038). Mechanistically, in both the OSM-IL6ST/gp130-OSMR and IL31-IL31RA-OSMR complexes, receptor dimerization activates JAK1 and JAK2 (and to a lesser extent TYK2) associated with the intracellular domains of IL6ST/gp130 and OSMR (or IL31RA and OSMR) (PubMed:15627637, PubMed:8999038, PubMed:9188471). These kinases phosphorylate tyrosine residues on IL6ST/gp130 and OSMR (or IL31RA and OSMR), creating docking sites for STAT1, STAT3, and STAT5B, which are then phosphorylated and activated (PubMed:15627637, PubMed:9188471). In addition, the IL31 receptor complex activates the MAPK

pathway (MAPK3/ERK1-MAPK1/ERK2) via recruitment of the adapter protein SHC1 (PubMed:15627637).

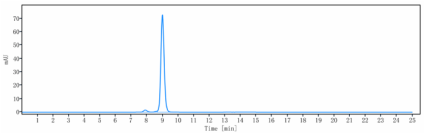
Cellular Location Membrane; Single-pass type I membrane protein

Tissue Location Expressed in keratinocytes (at protein level) (PubMed:21261663). Expressed at relatively high levels in all neural cells as well as fibroblast and epithelial cells (PubMed:8999038)

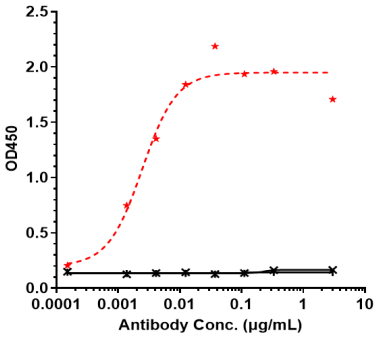
Images



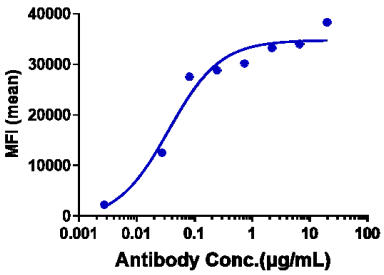
Anti-OSMR Reference Antibody (vixarelimab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-OSMR Reference Antibody (vixarelimab) is 96.9%, determined by SEC-HPLC.

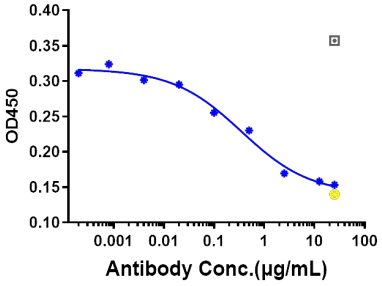


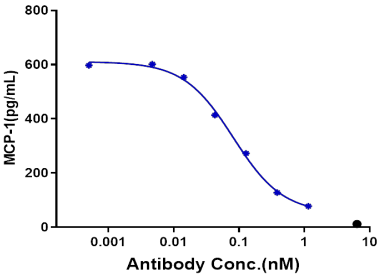
Immobilized human OSMR His at 2 ug/mL can bind Anti-OSMR Reference Antibody (vixarelimab), EC50=0.0024 ug/mL.



Human OSMR HEK293 cells were stained with Anti-OSMR Reference Antibody (vixarelimab) and negative control protein respectively, washed and then followed by PE and analyzed with FACS, EC50=0.0359 ug/mL.

Anti-OSMR Reference Antibody (vixarelimab) P-STAT3 Assay was evaluated using NHDF. The IC50 was approximately 0.3493 nM.





Anti-OSMR Reference Antibody (vixarelimab) MCP-1 secretion was evaluated using NHDF. The IC50 was approximately 0.0812 nM.

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