



Recombinant Human GPR15L

20210823BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-444S
Size:	5 µg
Lot. No.:	According to product label

Sequence

KRRPAKAWSG RRTRLCCHRV PSPNSTNLKG HHVRLCKPCK
LEPEPRLWVV PGALPQV

Database References

Protein RefSeq:	NP_997256.1
Uniprot ID:	Q6UWK7.1
mRNA RefSeq:	NM_207373.2

Scientific Background

Gene-ID (NCBI):	387695
Synonyms:	Antimicrobial peptide-57; AP-57; Colon-derived SUSD2 binding factor; CSBF; UNQ1833/PRO3446

GPR15L is a newly identified ligand for GPR15, a member of the G protein-coupled receptor (GPCR) family. Upon ligation, GPR15L acts as a potent chemoattractant for GPR15-expressing T cells and together they mediate lymphocyte recruitment to the large intestine and skin. GPR15L is constitutively expressed by colon epithelial cells where its expression is minimally altered by intestinal inflammation. Conversely, GPR15L is nearly undetectable in adult epidermis but highly upregulated during wound healing and inflammation, particularly in psoriasis. Significant expression of GPR15L is also seen in additional mucosal epithelial cells, including those of the stomach, esophagus, and urinary tract. While maintaining similar expression patterns and intramolecular disulfide cysteine bridges found in members of the CC chemokine family, GPR15L differs from classic CC and CXC chemokines, whose active sites are found on the N-terminus, in that it relies on its C-terminus for receptor interaction. GPR15L was first identified as an antimicrobial peptide (AMP) due to its broad spectrum of antimicrobial activity, a property shared with many chemokines. GPR15L binds to an additional receptor, SUSD2, and early studies have indicated that both are downregulated in colon cancer tissue resulting in inhibited colon cancer growth. The E.coli-derived Recombinant Human GPR15L consists of 57 amino acid residues and has a calculated molecular weight of 6.5 kDa.

Product Specifications

Expressed in	E. coli
Purity	≥ 98% by SDS-PAGE gel and HPLC analyses
Formulation	lyophilized
Length (aa):	57
MW:	6.5 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by its ability to chemoattract human PBMC's in a transwell-based migration assay.