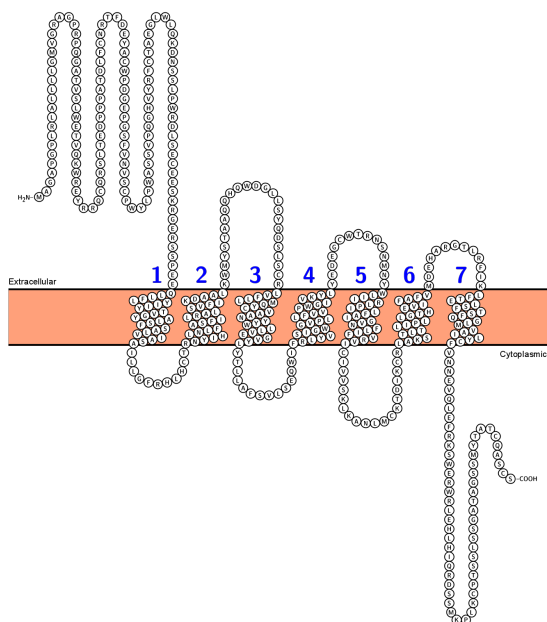


Glucagon-like peptide 1 receptor

Organism: Homo sapiens (Human) | Gene names: GLP1R



Entry: P43220

Mass: 53.026 Da

Transmembrane: 7

Subcellular location: Cell membrane

{ECO:0000269|PubMed:19861722,
ECO:0000269|PubMed:26308095,
ECO:0000269|PubMed:27196125,
ECO:0000269|PubMed:28514449,
ECO:0000269|PubMed:7517895,
ECO:0000269|PubMed:8216285,
ECO:0000269|PubMed:8405712}, Multi-pass membrane
protein {ECO:0000269|PubMed:28514449}.

Cofactor: -

Extinction coefficient: 2.372

Isoelectric Point: 8.49

PubMed ID: 8405712, 8404634, 8216285, 7517895,
7843404, 14574404, 15489334, 9213353, 20869417,
21901419, 22412906, 18287102, 19861722,
26308095, 27196125, 28514449

Family: -

Function:

G-protein coupled receptor for glucagon-like peptide 1 (GLP-1) (PubMed:8405712, PubMed:8216285, PubMed:7517895, PubMed:19861722, PubMed:26308095, PubMed:27196125, PubMed:28514449). Ligand binding triggers activation of a signaling cascade that leads to the activation of adenylyl cyclase and increased intracellular cAMP levels (PubMed:8405712, PubMed:8216285, PubMed:7517895, PubMed:19861722, PubMed:26308095, PubMed:27196125, PubMed:28514449). Plays a role in regulating insulin secretion in response to GLP-1 (By similarity). {ECO:0000250|UniProtKB:O35659, ECO:0000269|PubMed:19861722, ECO:0000269|PubMed:26308095, ECO:0000269|PubMed:27196125, ECO:0000269|PubMed:28514449, ECO:0000269|PubMed:7517895, ECO:0000269|PubMed:8216285, ECO:0000269|PubMed:8405712}.

Data from experiment(s): Hek293 membrane pellets

DIBMA 10	No data	DIBMA 12	No data
DIBMA Glycerol	No data	DIBMA Glucosamine	No data
Amphipol 17	No data	Amphipol 18	No data
AASTY 6-45	No data	AASTY 11-45	No data
AASTY 6-50	No data	AASTY 11-50	No data
AASTY 6- 55	No data	AASTY 11- 55	No data
SMALP 502-E	No data	SMALP 140-I	No data
SMALP 300	No data	SMALP 200	No data
SMALP 140	No data	DDM	No data
DM	No data	LMNG	No data
Fos-12	No data	Digitonin-A	No data
RIPA	No data		

Data from experiment(s): Hek293 membrane pellets 1 %

DIBMA 10	No data	DIBMA 12	No data
DIBMA Glycerol	No data	DIBMA Glucosamine	No data
Amphipol 17	No data	Amphipol 18	No data
AASTY 6-45	No data	AASTY 11-45	No data
AASTY 6-50	No data	AASTY 11-50	No data
AASTY 6- 55	No data	AASTY 11- 55	No data
SMALP 502-E	No data	SMALP 140-I	No data
SMALP 300	No data	SMALP 200	No data
SMALP 140	No data	DDM	No data
DM	No data	LMNG	No data
Fos-12	No data	Digitonin-A	No data
RIPA	No data		

Involvement in disease:

-

Binding site:

-

Tissue specificity:

-

3D (X-ray crystallography):

X-ray crystallography (14); Electron microscopy (11)

Pharmaceutical use:

-

AS sequence:

MAGAPGPLRLALLLLGMVGRAGPRPQGATVSLWETVQKWREYRRQCQRSLTEDPPPATDLFCNRTFDEYACWPDGEPGSFV
NVSCPWYLPWASSVPQGHVYRFCTAEGWLQKDNSSLPWRDLSECEESKRGERSSPEEQLLFLYIYTVGYALSFSALVIASAILL
GFRHLHCTRNYIHLNLFASFILRALSVEFIKDAALKWMYSTAAQQHQWDGLLSYQDSLSCRLVFLLMQYCVAANYWLLVEGVYL
YTLLAFSVLSEQWIFRLYVSIGWGVPLLFFVVPWGIVKLYEDEGCWTRNSNMNYWLIIRLPILFAIGVNFLIFVRVICIVVSKLKANL
MCKTDIKCRLAKSTLTLIPLLGTHEVIFAFVMDHARGTLRFIKLFTELTSFTSFQGLMVAILYCFVNNEVQLEFRKSWERWRLEHL
HIQRDSSMKPLKCPTSSLSSGATAGSSMYTATCQASCS

Creditnotes:

The protein visualizations are generated with the help of Protter:

Omasits, U., Ahrens, C.H., MÃ¼ller, S., Wollscheid, B. "Protter: interactive protein feature visualization and integration with experimental proteomic data". *Bioinformatics*. 2014 Mar 15; **30**(6):884-6. doi: 10.1093/bioinformatics/btt607.

IP and extinction coefficients are gathered from Protparam by ExPASy:

Gasteiger, E., Hoogland, C., Gattiker, A., Duvaud, S., Wilkins, M.R., Appel, R.D., Bairoch, A. "Protein Identification and Analysis Tools on the ExPASy Server". (In) *John M. Walker (ed): The Proteomics Protocols Handbook*, Humana Press (2005). pp. 571-607

The basic knowledge is found on UniProt:

The UniProt Consortium. "UniProt: the universal protein knowledgebase in 2021". *Nucleic Acids Res.* **49**:D1 (2021)
