

**Validated GPCR
protein sequences**

align

PVRQN-GCCMA-KMVLSVWLLSASITLPP-L--FG-WAQ
NTRYS-SKRRVTVMIAIVWVLSFTISCPL-L--FG-LNN
SPTAR-MWPSLCLALQTLWRTHQKESSER-L--FD-LYK
GTGQS-SCRRVAFMITAVWVLAFAVSCPL-L--FG-LNT
RSLQNKRSHTV-VSIASVWVFSFLLYGPVIL----SWKN

**assign residues
to GPCR domain**

IIIII-I	MMMM	MMMMMMMMMMMMMMMMMMMM	M--ME-EEE	✓
IIIII-I	IIII	MMMMMMMMMMMMMMMMMMMM	M--MM-MEE	✓
II	MMM	MMMMMMMMMMMMMMMMMMMM	EEEEEE-E--EE-EEE	✗
IIIII-I	IIII	MMMMMMMMMMMMMMMMMMMM	M--MM-MEE	✓
IIIIIIIIII	MM	MMMMMMMMMMMMMMMMMMMM	---MEEE	✓

consensus domains

**remove highly
discordant sequences**

yes

sequences removed?

no

**alignment
completed**