

Signal Sequence

5-HT3A -----MLLWVQALLALLPTLLAQGEARRSRNTRPALLRRLSDYLL
5-HT3B -----MLSSVMAPLWACIL--VAA GILATDTHHPQDSALYHLSKQLL
5-HT3C -----MEGGWPARQSALLCLTVSLLLQGRGDAFTINCSGFGDQHGVDPAVF
5-HT3D -----
5-HT3E **MLAFILSRATPRPALG**PLSYREHRVALLHLTHSMSTTGRGVFTFTINCSGFGQHGDPTAL
5-HT3Ea -----MEGSWFHRKRF SFYLLLGFLQGRGVFTFTINCSGFGQHGDPTAL

5-HT3A TNY--RKGVRPVRDWRKPTTVSIVDIYVAILNVDEKNQVLTTYIWYRQYWTDFLQWNPE
5-HT3B QKY--HKEVRPVYNWTKATTVYLDLFDVHAILDVAENQILKTSVWYQEVWDFLQWNSS
5-HT3C QAVFDRKAFRPFNTNYSIPTRVNISFTLSAILGVDAQLQLLTSFLWMDLVWDPNPFINWNP
5-HT3D -----
5-HT3E NSVFNKRKPRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDPNPFISWNP
5-HT3Ea NSVFNKRKPRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDPNPFISWNP

Cys-

5-HT3A DFDNITKLSIPTDSIWVPDILINEFVDVGKSPNIPYVYIRHQGEVQNYKPLQVVTACSLD
5-HT3B MFDEIREISLPLSAIWAPDIIINEFVDIERYPDLPYVYVNSSGTIENYKPIQVVSACSLE
5-HT3C **EC**CVGINKLTVLAENLWLPDIFIVESMDVDQTPSGLTAYISSEGRIKYDKPMRVTSICCKLD
5-HT3D -----
5-HT3E **EC**CEGITKMSMAAKNLWLPDIFIIEELMDVDKTPKGLTAYVSNEGRIRYKPKMKVDSICNLD
5-HT3Ea **EC**CEGITKMSMAAKNLWLPDIFIIEELMDVDKTPKGLTAYVSNEGRIRYKPKMKVDSICNLD

Loop

5-HT3A **IY**FPFDVQNC SLTFTSWLHTIQDINISLWRLPEKVKSDRSVFMNQGEWELLGVLVYFR
5-HT3B **TY**AFPFDVQNC SLTFKSI LHTVEDVDLAFLRSPEDIQH-DKKAFLNDSEWELLSVSSTY-
5-HT3C **IF**YFPFDQQNC TTFSSFLYTVDSMLLGMDEKVEWEITDTSRKVIQTQGEWELLGINKATP
5-HT3D -----MASMSIVKATSNTISQCGWSASANWTP-SISPSMD
5-HT3E **IF**YFPFDQQNC TLTFSFLYTVDSMLLDMKEVWEITDASRNILQTHGEWELLGLSKATA
5-HT3Ea **IF**YFPFDQQNC TLTFSFLYTVDSMLLDMKEVWEITDASRNILQTHGEWELLGLSKATA

Epitope **TM1**

5-HT3A EFSMESSNYAEMKFYVIRRRPL**FYVVSLLLPSIFLMVMDIVGFYLP**PPNSGERVSFKIT
5-HT3B SILQSSAGGFAQIQFNVMRRHPL**VYVVSLLLPSIFLMLVDLGSFYLP**PPNCRARIVFKTS
5-HT3C KMSMGNNL-YDQIMFYVAIRRRPS**LYVINLLVPSGFLVAIDALSFYLP**PAESENRAFPKIT
5-HT3D RA**ERS**PSA-LSPTQVAIRHRCRPS**PYVFNFLVPSGILIAIDALSFYLP**PPESGNCAFPKIT
5-HT3E KLSRGGNL-YDQIVFYVAIRRRPS**LYVINLLVPSGFLVAIDALSFYLP**VKSGNRVFPKIT
5-HT3Ea KLSRGGNL-YDQIVFYVAIR RPS**LYVINLLVPSGFLVAIDALSFYLP**VKSGNRVFPKIT

TM2 **TM3**

5-HT3A **LLL**GYSVFLIIVSDTLPATAI**GTPLI**-----**GVYFVVC**MALLVISLAETIF
5-HT3B **VLV**GYTVFRVNMSNQVPRSV**GTPLI**-----**GHFFTIC**MAFLVLSLAKSIV
5-HT3C **LLL**GYNVFLLMNDLLP--AS**GTPLI**-----**SVYFAL**CLSLMVVSLLETIF
5-HT3D **VLL**GYSVFLLMNDLLP--ATSTSSHASLVRPHPSRDQKR**GVYFAL**CLSLMVGSLETIF
5-HT3E **LLL**GYNVFLLMMSDLLP--TS**GTPLI**-----**GVYFAL**CLSLMVGSLETIF
5-HT3Ea **LLL**GYNVFLLMMSDLLP--TS**GTPLI**-----**GVYFAL**CLSLMVGSLETIF

5-HT3A **I**VRLVH-KQDLQQPVPAWLRHLVLERIAWLLCLREQSTSQRPPATSQA KT--DDCSAMG
5-HT3B **L**VKFLHDEQRGGQEQP-----FL-CLRGDTADRPRVEPRAQRAVVTESLYG
5-HT3C **I**TYLLHVATTQPPMPRWLHSL-----LLHCTSPGRCC--PTAPQKGNKG---LGLTL
5-HT3D **I**THLLHVATTQPLPLRWLHSL-----LLHCTQGRC--PTAPQKGNKG---PGVTP
5-HT3E **I**THLLHVATTQPPPLRWLHSL-----LLHCNSPGRCC--PTAPQKENKG---PGLTP
5-HT3Ea **I**THLLHVATTQPPPLRWLHSL-----LLHCNSPGRCC--PTAPQKENKG---PGLTP

5-HT3A NHCSHMGQPQDFEKSPDRCSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREV---
5-HT3B EHLAQPG-----T--LKE-----VWSQLQSI SNYLQTQDQTDQQ-----
5-HT3C THLPGPK-----EPGELAGKLGPRE-----TEPDGGSAWTKTQL-----
5-HT3D THLPGVK-----EPEVSAGQMPGPGE-----AELTGGSEWTRAQREHEAQKQHS
5-HT3E THLPGVK-----EPEVSAGQMPGPAE-----AELTGGSEWTRAQREHEAQKQHS
5-HT3Ea THLPGVK-----EPEVSAGQMPGPAE-----AELTGGSEWTRAQREHEAQKQHS

TM4

5-HT3A ARDWLRVGSVLDKLL**FHIYLLAVLAYSITLVMLWSIWQYA**
5-HT3B EAEWLVLLSRFDRL**LFQSYLFMLGIYITITLCSLWALWGGV**
5-HT3C MELWVQFSHAM**D**TL**LFRLYLLFM**ASSIITVIVLWNT---
5-HT3D VELWVQFSHAM**D**ALL**FRLYLLFM**ASSIITVICLWNT---
5-HT3E VELWVQFSHAM**D**AM**LFRLYLLFM**ASSIITVICLWNT---
5-HT3Ea VELWVQFSHAM**D**AM**LFRLYLLFM**ASSIITVICLWNT---

Figure 1