

AChR (Acetylcholin receptor) protein from *T. Californica*

Product	Catalog No.	Package size
AChR (Acetylcholin receptor) protein (40 µg)	28601	1 x 40 µg
AChR (Acetylcholin receptor) protein (80 µg)	28603	1 x 80 µg

Please contact us for bulk quantities and for AChR (Acetylcholin receptor) reconstituted into nanodiscs.

Product Description

Alternative names	
UniProt number	P02712 (alpha Subunit); P02714 (beta Subunit); P02718 (gamma Subunit); P02710 (gamma Subunit)
Protein class	Ion channel, Ligand-gated ion channel, Receptor
Organism	Torpedo Californica (electric ray)
Sequence	Full-length, wildtype sequence
	<p>Full-length, alpha Subunit MILCSYWHV GLVLLLFSCC GLVLGSEHET RLVANLLENY NKVIRPVEHH THFVDITVGL QLIQLISVDE VNQIVETNVR LRQQWIDVRL RWNPADYGGI KKIRLPSSDDV WLPDLVLYNN ADGDFAIVHM TKLLLDYTGK IMWTPPAIFK SYCEIIVTHF PFDQQNCTMK LGIWTYDGTK VSISPESDRP DLSTFMESGE WVMKDYRGWK HWVYYTCCPD TPYLDITYHF IMQRIPLYFV VNVIIPELLF SFLTGLVFYL PTDSGEKMTL SISVLLSLTV FLLVIVELIP STSSAVPLIG KYMLFTMIFV ISSIITVVV INTHHRSPST HTMPQWVRKI FIDTIPNVMF FSTMKRASKE KQENKIFADD IDISDISGKQ VTGEVIFQTP LIKNPDVKS AIEGVKZIAEH MKSDEESSNA AEEWKYVAMV IDHILLCVFM LICIIGTVSV FAGRLIELSQ EG</p> <p>Full-length, beta Subunit MENVRRMALG LVMMALALS GVGASVMEDT LLSVLFETYN PKVRPAQTVG DKVTVRVGLT LTNLLILNEK IEEMTTNVFL NLAWTDYRLQ WDPAAYEGIK DLRIPSSDVW QPDIVLMNNN DGSFEITLHV NVLVQHTGAV SWQPSAIYRS SCTIKVMYFP FDWQNCTMV F KSYTYDTSEV TLQHALDAKG EREVKEIVIN KDAFTENGQW SIEHKPSRKN WRSDDPSYED VTFYLIQPK PLFYIVYTI PCILISILAI LVFYLPPDAG EKMSLSISAL LAVTVFLLLL ADKVPETSLS VPIIRYLMF IMILVAFSVI LSVVVLNLHH RSPNHTMPN WIRQIFIETL PPFLWIQRPV TTPSPDSKPT IISRANDYF IRKPAGDFVC PVDNARVAVQ PERLFSEMKW HLNGLTQPVT LPQDLKEAVE AIKYIAEQLE SASEFDDLK DWQYVAMVAD RFLYVFFVI CSIGTFSIFL DASHNVPPDN PFA</p> <p>Full-length, gamma subunit MVLTLIIIIC LALEVRSENE EGRLIEKLLG DYDKRIIPAK TLDHIIDVTL KLTLTNLISL NEKEEALTTN VWIEIQWNDY RLSWNTSEYE GIDLVRIPSE LLWLPDVVLE NNVDGQFEVA YYANLVYND GSMYWLPPAI YRSTCPIAVT YFPFDWQNC S LVFRSQT YNA HEVNLQLSAE</p>

	<p>EGEAVEWIHI DPEDFTENGE WTIRHRPAKK NYNWQLTKDD TDFQEIIFFL IIQRKPLFYI INIIAPCVLI SSLVVLVYFL PAQAGGQKCT LSISVLLAQT IFLFLIAQKV PETSINVPLI GKYLIFVMFV SMLIVMNCVI VLNVSRLTPN THSLSEKIKH LFLGFLPKYL GMQLEPSEET PEKQPORRRS SFGIMIKAE E YILKKPRSEL MFEEQKDRHG LKRVNKMTSD IDIGTTVDLY KDLANFAPEI KSCVEACNFI AKSTKEQNDS GSENNWVLI GKVIDKACFW IALLLSIGT LAIFLTGHFN QVPEFPFPGD PRKYVP</p> <p>Full-length, dekta subunit MGNIHFVYLLISCLYSGCS GVNEEERLIN DLLIVNKYNK HVRPVKHNE VVNIASLTL SNLISLKETD ETLSNVWMD HAWYDHRLTW NASEYSDISI LRLPELVWI PDIVLQNNND GQYHVAYFCN VLVRPNGYVT WLPPAIFRSS CPINVLYFPF DWQNCSLKFT ALNYDANEIT MDLMTDTIDG KDYPIEWIII DPEAFTENGE WEIHKPAKK NIYPDKFPNG TNYQDVTFYL IIRRKPLFYV INFITPCVLI SFLASLAFYL PAESGKMST AISVLLAQAV FLLLSQRLP ETALAVPLIG KYLMFIMSLV TGVIVNCGIV LNFHFRTPTST HVLSTRVKQI FLEKLPRILH MSRADESEQP DWQNCLKLRR SSSVGYISKA QEYFNIKSR S ELMFEKQSER HGLVPRVTPR IGFGNNEINI AASDQLHDEI KSGIDSTNYI VKQIKEKNAY DEEVGNWNLV GQTIDRLSMF IITPVMVLGT IFIFVMGNFN HPPAKPFEGD PFDYSSDHPR CA</p>
Affinity tags	none
Size (excluding affinity sequence)	alpha 52,7 kDa; beta 56,1 kDa; gamma 58,1 kDa; delta 60 kDa
Function	After binding acetylcholine, the AChR responds by an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane.

Quality Control

Purity (SDS-PAGE)	>95% as determined by SDS-PAGE, see Fig. 1
Activity	purified as functional heterotetramer binding to Neurotoxin-3 ligand

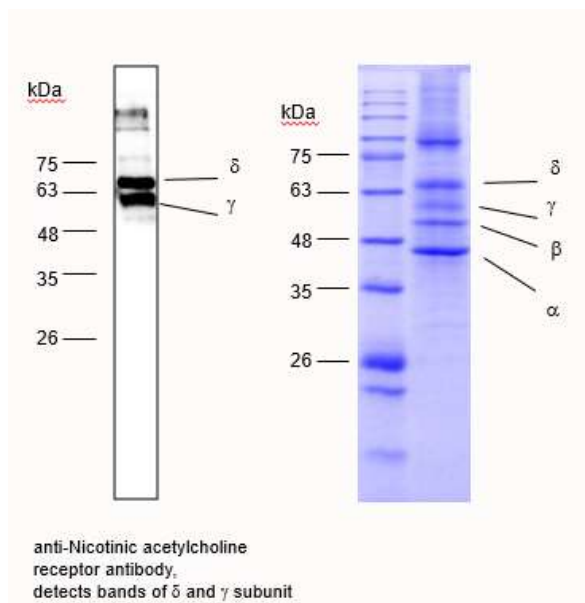


Fig. 1: Size and purity of AChR assessed by SDS-PAGE and Western Blot using a Rho1D4 antibody.

Preparation:

Expression system	T. Californica (native)
Purification	Protein-specific affinity matrix using immobilized agonist ligand, dialysis
Buffer	137 mM NaCl, 2.7 mM KCl, 10 mM Na ₂ HPO ₄ , 1.8 mM KH ₂ PO ₄ , 5 % glycerin; 0,1 % Triton
Activity	Native AChR from T.Californica, purified as functional heterotetramer binding to Neurotoxin-3 ligand
Form	Liquid

Applications

- SDS-PAGE
- Western Blot
- Ligand binding assays (e.g. SPR)
- Protein Crystallization
- Biochemical and biophysical analyses
- Immunization

Shipping & Storage

Shipping conditions	Dry ice
Storage conditions	-80°C. Avoid freeze-thaw cycles

Disclaimer: Our products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

Proteins are our passion.