

## Product Information

### MemDX™ Membrane Protein Human CHRNA2 (Cholinergic receptor nicotinic alpha 2 subunit) Full Length

Cat. No.: **MPC0461K**

This product is for research use only and is not intended for diagnostic use.

This product is a 59.7 kDa Human CHRNA2 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

#### Product Specifications

##### Host Species

Human

##### Target Protein

CHRNA2

##### Protein Length

Full length

##### Protein Class

Transporter; Ion channel

##### Molecular Weight

59.7 kDa

##### TMD

4

##### Sequence

MGPSCPVFLSFTKLSLWLLLTTPAGGEEAKRPPPRAPGDPLSSPSPTALP  
QGGSHTEDETRLFKHLFRGYNRWARPVPNTSDVVIVRFGLSIAQLIDVDE  
KNQMMTTNVWLKQEWSDYKLRWNPTDFGNITSLRVPSEMIWIPDIVLYNN  
ADGEFAVTHMTKAHLFSTGTVHWVPPAIYKSSCSIDVTFFPFDQQNCKMK  
FGSWTYDKAKIDLEQMEQTVDLKDYWESGEWAIVNATGTYNSSKKYDCCAE  
IYPDVTYAFVIRRLPLFYTINLIIPCLLISCLTVLVFYLPSDCGEKITLC  
ISVLLSLTVFLLITEIIPSTSLVIPLIGEYLLFTMIFVTLISIVITVFVL  
NVHHRSPSTHTMPHWVRGALLGCVPRWLLMNRPPPPVELCHPLRLKLSPS  
YHWLESNVDAEEREVVVEEDRWACAGHVAPSVGTLCSHGHLHSGASGPK  
AEALLQEGELLSPHMQKALEGVHYIADHLRSEDADSSVKEDWKYVAMVI  
DRIFLWLFIVCFLGTIGLFLPPFLAGMI

#### Product Description

##### Expression Systems

HEK293

**Tag**

Based on specific requirements

**Protein Format**

Detergent or based on specific requirements

**Form**

Liquid

**Storage**

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

**Target****Target Protein**

CHRNA2

**Full Name**

Cholinergic receptor nicotinic alpha 2 subunit

**Introduction**

Nicotinic acetylcholine receptors (nAChRs) are ligand-gated ion channels formed by a pentameric arrangement of alpha and beta subunits to create distinct muscle and neuronal receptors. Neuronal receptors are found throughout the peripheral and central nervous system where they are involved in fast synaptic transmission. This gene encodes an alpha subunit that is widely expressed in the brain. The proposed structure for nAChR subunits is a conserved N-terminal extracellular domain followed by three conserved transmembrane domains, a variable cytoplasmic loop, a fourth conserved transmembrane domain, and a short C-terminal extracellular region. Mutations in this gene cause autosomal dominant nocturnal frontal lobe epilepsy type 4. Single nucleotide polymorphisms (SNPs) in this gene have been associated with nicotine dependence.

**Alternative Names**

neuronal acetylcholine receptor subunit alpha-2; acetylcholine receptor, nicotinic, alpha 2 (neuronal); cholinergic receptor, nicotinic alpha 2; cholinergic receptor, nicotinic, alpha 2 (neuronal); cholinergic receptor, nicotinic, alpha polypeptide 2 (neuronal); CHRNA2; Cholinergic receptor nicotinic alpha 2 subunit

**Gene ID**

[1135](#)

**UniProt ID**

[Q15822](#)