

# Product Information

## MemDX™ Membrane Protein Human DUOX1 (Dual oxidase maturation factor 1) Full Length

Cat. No.: **MPC3755K**

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

This product is a made-to-order Human DUOX1 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

DUOX1

#### Protein Length

Full length

#### Protein Class

Transporter

#### TMD

5

#### Sequence

MATLGHTFPFYAGPKPTFPMDDTLASIIMIFLTALATFIVILPGIRGKTR  
LFWLLRVVTSLSFIGAAILAVNFSSEWSVGQVSTNTSYKAFSSEWISADIG  
LQVGLGGVNITLTGTPVQQLNETINYNEEFTWRLGENYAEYAKALEKGL  
PDPVLYLAEKFTPRSPCGLYRQYRLAGHYTSAMLWVAFLCWLLANVMLSM  
PVLVYGGYMLLATGIFQLLALLFFSMATSLTSPCPLHLGASVLHTHHGPA  
FWITLTTGLLCVLLGLAMAVAHMRMQPHRLKAFFNQSVDEDPMLEWSPEEG  
GLLSPRYRSMADSPKSQDIPLSEASSTKAYCKEAHPKDPDCAL

### Product Description

#### Expression Systems

HEK293

#### Tag

Based on specific requirements

#### Protein Format

Detergent or based on specific requirements (Detergent, Liposome, Nanodisc, Polymer, VLP)

#### Form

Liquid

### Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

### Target

#### Target Protein

DUOXA1

#### Full Name

Dual oxidase maturation factor 1

#### Introduction

Dual oxidases DUOX1 and DUOX2 are NADPH oxidases which are involved in hydrogen peroxide production necessary for thyroid hormonogenesis. They form a heterodimer with specific maturation factors DUOXA1 and DUOXA2, respectively, which is essential for the maturation and function of the DUOX enzyme complexes. This gene encodes the DUOX1 activator or maturation factor DUOXA1. Rat studies identified a bidirectional promoter which controls the transcription of the DUOX1 and DUOXA1 genes. This protein is cotransported to the cell surface when coexpressed with DUOX1 and is retained in the endoplasmic reticulum when expressed without DUOX1 protein. The expression of this gene or the DUOX1 gene is not suppressed by thyroglobulin (Tg), a macromolecular precursor in thyroid hormone synthesis, while the expression of the DUOX2 and DUOXA2 are significantly suppressed by the Tg. This protein is also a p53-regulated neurogenic factor involved in p53 dependent neuronal differentiation. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene.

#### Alternative Names

DUOXA1; NIP; mol; NUMBIP; dual oxidase maturation factor 1; dual oxidase activator 1; dual oxidase maturation factor 1 alpha; dual oxidase maturation factor 1 beta; dual oxidase maturation factor 1 delta; dual oxidase maturation factor 1 gamma; homolog of Drosophila Numb-interacting protein; Dual oxidase maturation factor 1

#### Gene ID

[90527](#)

#### UniProt ID

[Q1HG43](#)