

## VDAC1 – Voltage-Dependent Anion Channel 1

### Product specification

**Acronym:** VDAC1

**Origin species:** Human

**Protein reference :** P21796 (UniProtKB)  
L06132.1 (GenBank)

**Family:** Anion channel

**Expression system:** E.coli based CFPS

**Format:** Detergent

**Protein sequence:** Met1 - Ala283

**Tag :** Histidine tag fused to the N-terminal end of the protein

**Cleavage site:** Factor Xa

**Product MW:** 30,7kDa

**Application:** Drug screening & discovery, antibody development, structural biology

### Product description

VDAC-1 (Voltage-Dependent Anion Channel) is a mitochondrial porin located in the outer mitochondrial membrane (OMM). This protein consists of a transmembrane  $\beta$ -barrel with an N-terminal  $\alpha$ -helix. VDAC is responsible for the exchange of adenine nucleotides,  $\text{Ca}^{2+}$  and other metabolites across the mitochondrial membrane. It also has binding sites for glycerol, hexokinase II, creatine kinase and Bcl-2 family members. VDAC plays a central role in the increase of mitochondrial membrane permeability as part of apoptosis.

### Recombinant protein sequence

His tag – factor Xa cleavage site-

MSGFHHHHHSSGIEGRRLIKHMAVPPTYADLGKSARDVFTKGYGFGLIKLDLKTSENGLEFTSSGSANTETTKVTGSLETKYRWTEYGLTFTEKWNTDNTLGTETITVEDQLARGLKLTDFDSSFSPNTGKKNKIKTGYKREHINLGCMDMDFDIAGPSIRGALVLGYEGWLAGYQMNFFETAKSRVTQSNFAVGYKTDEFQLHTNVNDGTEFGGSIYQKVNKLETAVNLAWTAGNSNTRFGIAAKYQIDPDACFSAKVNNSSLIGLGYTQTLKPGIKLTLALLDGKNVNAGGHKLGLEFQA

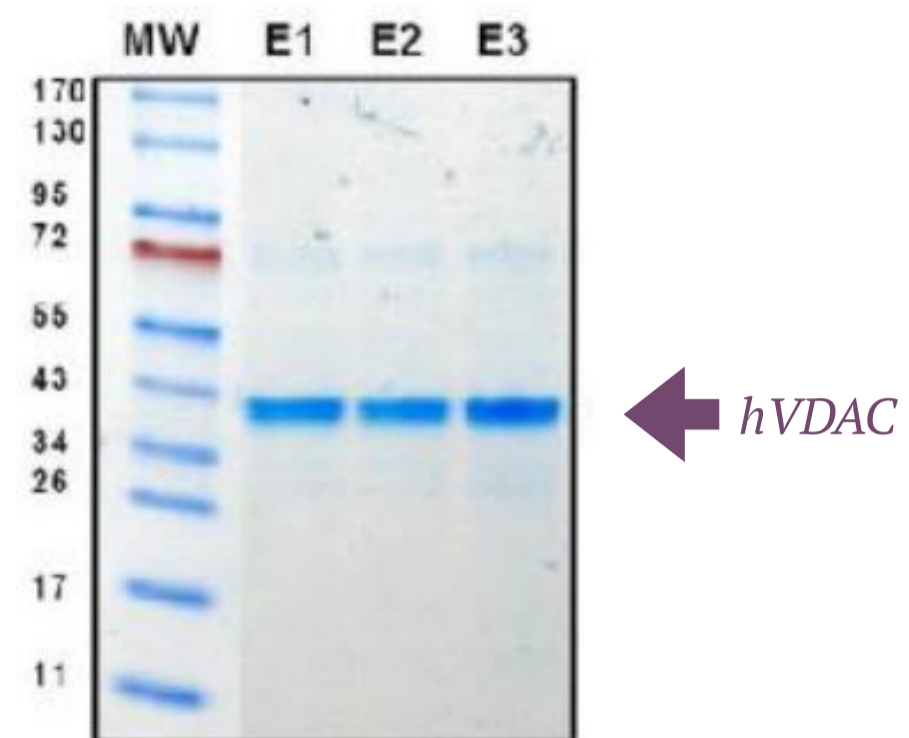
## Quality analysis

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**Purity:** Typically, > 90% as determined by SDS-Page and Coomassie Blue staining.

**Purification procedure:** hVDAC are purified using paramagnetic precharged nickel particles. Further purification can be performed if required.

*Fig.1: Soluble hVDAC recoverd by elution with imidazole.*



## Formulation

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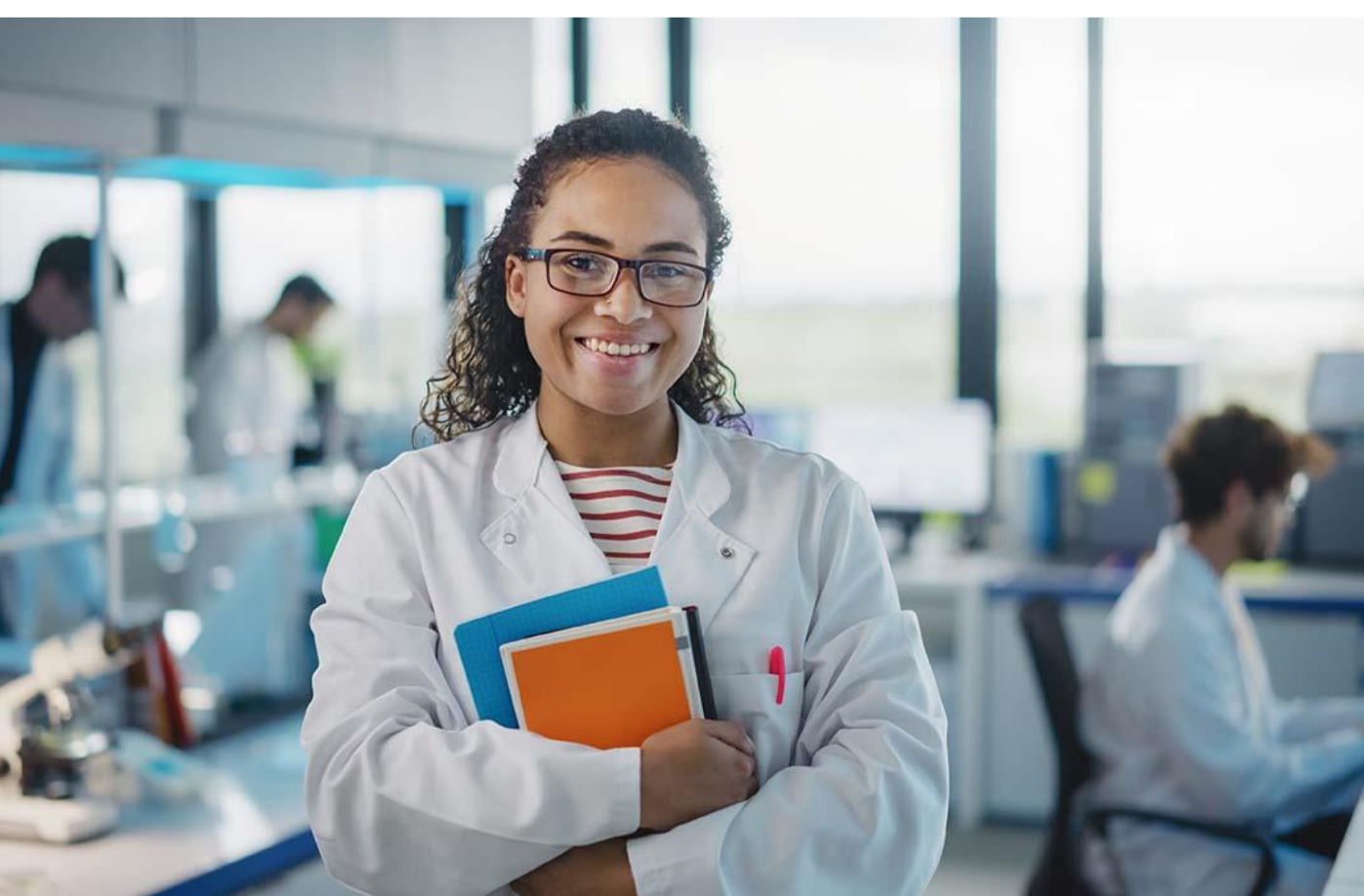
**Buffer:** Available in Tris 50mM, pH 7.5. Other buffers or customized formulation can be provided upon request.

**Customized Hydrophobic matrix:** Customized formulation with specific lipids like PEGylated or biotinylated lipids can be used upon request, as well as targeting molecules.

**Storage/Stability:** Store at +4°C for up to one week or several months at -80°C. Aliquot for storage.  
Do not freeze-thaw after aliquoting.

**Use restrictions:** For life science research use only.

**Available sizes:** 10µg, 20µg, 100µg, 200µg, 500µg - higher quantity on request.



Need a specific amount, a quote or any additional information?  
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