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## Datasheet for ABIN3133351 Connexin 43/GJA1 Protein (AA 2-382) (rho-1D4 tag)



Overview

Image

Quantity:	1 mg	
Target:	Connexin 43/GJA1 (GJA1)	
Protein Characteristics:	AA 2-382	
Origin:	Mouse	
Source:	Insect Cells	
Protein Type:	Recombinant	
Purification tag / Conjugate:	This Connexin 43/GJA1 protein is labelled with rho-1D4 tag.	
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)	

## Product Details

Sequence:	GDWSALGKLL DKVQAYSTAG GKVWLSVLFI FRILLLGTAV ESAWGDEQSA FRCNTQQPGC	
	ENVCYDKSFP ISHVRFWVLQ IIFVSVPTLL YLAHVFYVMR KEEKLNKKEE ELKVAQTDGV	
	NVEMHLKQIE IKKFKYGIEE HGKVKMRGGL LRTYIISILF KSVFEVAFLL IQWYIYGFSL	
	SAVYTCKRDP CPHQVDCFLS RPTEKTIFII FMLVVSLVSL ALNIIELFYV FFKGVKDRVK	
	GRSDPYHATT GPLSPSKDCG SPKYAYFNGC SSPTAPLSPM SPPGYKLVTG DRNNSSCRNY	
	NKQASEQNWA NYSAEQNRMG QAGSTISNSH AQPFDFPDDS QNAKKVAAGH ELQPLAIVDQ	
	RPSSRASSRA SSRPRPDDLE I	
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a	
	special request, please contact us.	
Characteristics:	<ul> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> <li>Mouse Gja1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.</li> </ul>	

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	• State-of-the-art algorithm used for plasmid design (Gene synthesis).
	This protein is a made to order protein and will be made for the first time for your order. Our
	experts in the lab will ensure that you receive a correctly folded protein.
	The big advantage of ordering our made-to-order proteins in comparison to ordering custom
	made proteins from other companies is that there is no financial obligation in case the protein
	cannot be expressed or purified.
	In the unlikely event that the protein cannot be expressed or purified we do not charge anything
	(other companies might charge you for any performed steps in the expression process for
	custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression
	experiments or purification optimization).
	When you order this made-to-order protein you will only pay upon receival of the correctly
	folded protein. With no financial risk on your end you can rest assured that our experienced
	protein experts will do everything to make sure that you receive the protein you ordered.
	The concentration of our recombinant proteins is measured using the absorbance at 280nm.
	The protein's absorbance will be measured in several dilutions and is measured against its
	specific reference buffer.
	The concentration of the protein is calculated using its specific absorption coefficient. We use
	the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect
	cells:
	1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
	2. The best performing detergent is used for solubilization and the proteins are purified via their
	rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
	3. Protein containing fractions of the best purification are subjected to second purification step
	through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and
	Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

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Target Details			
Target:	Connexin 43/GJA1 (GJA1)		
Alternative Name:	Gja1 (GJA1 Products)		
Background:	Gap junction protein that acts as a regulator of bladder capacity. A gap junction consists of a cluster of closely packed pairs of transmembrane channels, the connexons, through which materials of low MW diffuse from one cell to a neighboring cell. Negative regulator of bladder functional capacity: acts by enhancing intercellular electrical and chemical transmission, thus		
	sensitizing bladder muscles to cholinergic neural stimuli and causing them to contract. May play a role in cell growth inhibition through the regulation of NOV expression and localization (PubMed:15181016). Plays an essential role in gap junction communication in the ventricles (PubMed:26403541). {ECO:0000269 PubMed:15181016, ECO:0000269 PubMed:22549838, ECO:0000269 PubMed:26403541}., Connexin 43 is possibly the ATP-induced pore of mouse macrophages. {ECO:0000269 PubMed:22549838}.		
Molecular Weight:	44.0 kDa Including tag.		
UniProt:	P23242		
Pathways:	MAPK Signaling, Myometrial Relaxation and Contraction, Cell-Cell Junction Organization		
Application Details			
Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.		
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.		
Restrictions:	For Research Use only		
Handling			
Format:	Liquid		
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.		
Handling Advice:	Avoid repeated freeze-thaw cycles.		
Storage:	-80 °C		

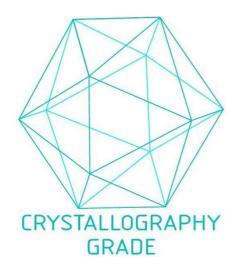
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 Storage Comment:
 Store at -80°C.

 Expiry Date:
 Unlimited (if stored properly)

Images



**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process

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