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Product datasheet for TP310660L

NIT2 (NM_020202) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human nitrilase family, member 2 (NIT2), 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC210660 protein sequence Red=Cloning site Green=Tags(s) MTSFRLALIQLQISSIKSDNVTRACSFIREAATQGAKIVSLPECFNSPYGAKYFPEYAEKIPGESTQKLS EVAKECSIYLIGGSIPEEDAGKLYNTCAVFGPDGTLLAKYRKIHLFDIDVPGKITFQESKTLSPGDSFST FDTPYCRVGLGICYDMRFAELAQIYAQRGCQLLVYPGAFNLTTGPAHWELLQRSRAVDNQVYVATASPAR DDKASYVAWGHSTVVNPWGEVLAKAGTEEAIVYSDIDLKKLAEIRQQIPVFRQKRSDLYAVEMKKP TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Predicted MW:	30.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity:	Enzyme activity (PMID: 28358347)
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_064587
Locus ID:	56954

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UniProt ID: Q9NQR4, V9HW91

RefSeq Size: 1271

Cytogenetics: 3q12.2

RefSeq ORF: 828

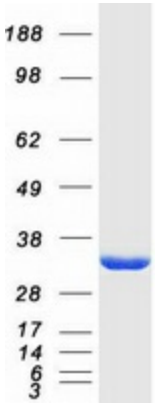
Synonyms: HEL-S-8a

Summary: Has a omega-amidase activity. The role of omega-amidase is to remove potentially toxic intermediates by converting alpha-ketoglutaramate and alpha-ketosuccinamate to biologically useful alpha-ketoglutarate and oxaloacetate, respectively. Overexpression decreases the colony-forming capacity of cultured cells by arresting cells in the G2 phase of the cell cycle. [UniProtKB/Swiss-Prot Function]

Product images:

Substrate	Enzyme Added (ng)	Specific Activity µmol/min/mg [a]
2-Oxoglutaramate (2-OGM) [b]	72.8	3.0 ± 0.9 (3)
Succinamate [c]	146	3.4 ± 0.3 (3)
L-2-Hydroxyglutaramate (L-2-HGM) [c]	291	1.4 ± 0.1 (7)
L-2-Hydroxysuccinamate (L-2-HSM) [d]	146	0.51 ± 0.18 (5)

The specific activity of different substrates of human Nit 2 (OriGene [TP310660]). a: the number of replicates is shown in parenthesis. Figure cited from Biology (Basel), PMID: 28358347



Coomassie blue staining of purified NIT2 protein (Cat# [TP310660]). The protein was produced from HEK293T cells transfected with NIT2 cDNA clone (Cat# [RC210660]) using MegaTran 2.0 (Cat# [TT210002]).