

Product datasheet for **RC208982**

Diazepam Binding Inhibitor (DBI) (NM_020548) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Diazepam Binding Inhibitor (DBI) (NM_020548) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Diazepam Binding Inhibitor
Synonyms:	ACBD1; ACBP; CCK-RP; EP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208982 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC CGGATCGCC ATGTGGGGCGACCTCTGGCTCCTCCCGCTGCCTCTGCCAATCCGGGCACTGGGACAGAGGCTGAGTTTGAAGAAAGCTGCAGAGGAGTTAGGCACCTTAAGACCAAGCCATCGGATGAGGAGATGCTGTTCATCTATGGCCACTACAAACAAGCAACTGTGGGCGACATAAATACAGAACGGCCCGGGATGTTGGACTTCACGGGCAAGGCCAAGTGGGATGCCTGGAATGAGCTGAAAGGGACTTCCAAGGAAGATGCCATGAAAGCTTACATCAACAAGTAGAAGAGCTAAAGAAAAAATACGGGATA ACGCGT ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA >RC208982 protein sequence Red=Cloning site Green=Tags(s) MWGDLWLLPPASANPGTGTEAEFEKAAEEVRHLKTKPSDEEMLFYGHYKQATVGDINTERPGMLDFTGKAKWDAWNELKGTSKEDAMKAYINKVEELKKYGI TR TRPLEQKLISEEDLAANDILDYKDDDDKV
Protein Sequence:	>RC208982 protein sequence Red=Cloning site Green=Tags(s) MWGDLWLLPPASANPGTGTEAEFEKAAEEVRHLKTKPSDEEMLFYGHYKQATVGDINTERPGMLDFTGKAKWDAWNELKGTSKEDAMKAYINKVEELKKYGI TR TRPLEQKLISEEDLAANDILDYKDDDDKV
Chromatograms:	https://cdn.origene.com/chromatograms/mk6354_h01.zip
Restriction Sites:	SgfI-MluI



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Cloning Scheme:


ACCN: NM_020548

ORF Size: 312 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

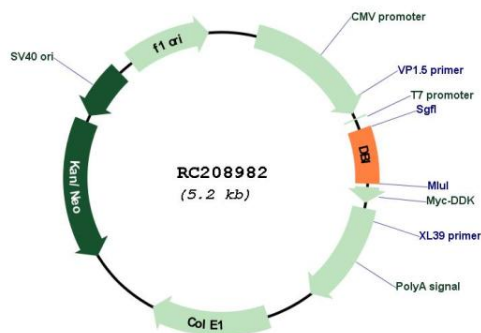
RefSeq: [NM_020548.8](#)

RefSeq Size: 745 bp

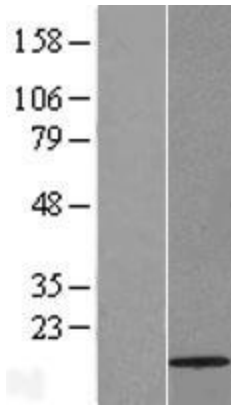
RefSeq ORF: 315 bp

Locus ID:	1622
UniProt ID:	P07108
Cytogenetics:	2q14.2
Domains:	ACBP
Protein Families:	Druggable Genome
Protein Pathways:	PPAR signaling pathway
MW:	11.8 kDa
Gene Summary:	This gene encodes diazepam binding inhibitor, a protein that is regulated by hormones and is involved in lipid metabolism and the displacement of beta-carbolines and benzodiazepines, which modulate signal transduction at type A gamma-aminobutyric acid receptors located in brain synapses. The protein is conserved from yeast to mammals, with the most highly conserved domain consisting of seven contiguous residues that constitute the hydrophobic binding site for medium- and long-chain acyl-Coenzyme A esters. Diazepam binding inhibitor is also known to mediate the feedback regulation of pancreatic secretion and the postprandial release of cholecystokinin, in addition to its role as a mediator in corticotropin-dependent adrenal steroidogenesis. Three pseudogenes located on chromosomes 6, 8 and 16 have been identified. Multiple transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

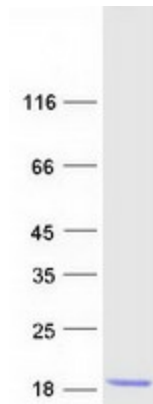
Product images:



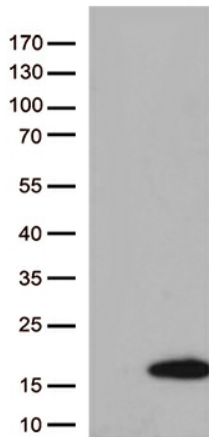
Circular map for RC208982



Western blot validation of overexpression lysate (Cat# [LY412418]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208982 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DBI protein (Cat# [TP308982]). The protein was produced from HEK293T cells transfected with DBI cDNA clone (Cat# RC208982) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DBI (Cat# RC208982, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DBI (Cat# [TA813117])(1:500).