



[Go to Product page](#)

Datasheet for ABIN7538214

## Dopamine Receptor d1 Protein

### Overview

Quantity:	50 µg
Target:	Dopamine Receptor d1 (DRD1)
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

### Product Details

Purpose:	Human DRD1 full length protein-synthetic nanodisc
Characteristics:	Unlike other membrane scaffold protein (MSP) Nanodisc on the market, our synthetic Nanodisc can be prepared directly from the cells. The polymers used during this process have a dual function. It dissolves the cell membranes, like the detergent, and uses cellular phospholipids to form Nanodisc around the membrane proteins. The target protein embedded Nanodiscs can then be purified.

### Target Details

Target:	Dopamine Receptor d1 (DRD1)
Alternative Name:	DRD1 ( <a href="#">DRD1 Products</a> )
Background:	This gene encodes the D1 subtype of the dopamine receptor. The D1 subtype is the most abundant dopamine receptor in the central nervous system. This G-protein coupled receptor stimulates adenylyl cyclase and activates cyclic AMP-dependent protein kinases. D1 receptors regulate neuronal growth and development, mediate some behavioral responses, and modulate dopamine receptor D2-mediated events. Alternate transcription initiation sites result in two

## Target Details

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transcript variants of this gene. [provided by RefSeq, Jul 2008]

Molecular Weight: The human full length DRD1 protein has a MW of 49.3kDa

UniProt: [P21728](#)

Pathways: [cAMP Metabolic Process](#), [Inositol Metabolic Process](#), [Protein targeting to Nucleus](#), [Feeding Behaviour](#), [Smooth Muscle Cell Migration](#), [Regulation of long-term Neuronal Synaptic Plasticity](#)

## Application Details

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Comment: Advantages of Synthetic Nanodiscs:

- Highly purified membrane proteins
- High solubility in aqueous solutions
- High stability
- Proteins are in a native membrane environment and remain biologically active
- No detergent and can be used for cell-based assays
- No MSP backbone proteins

Limitations of Synthetic Nanodiscs:

- Intolerant to acids and high concentrations of divalent metal ions

Restrictions: For Research Use only

## Handling

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Format: Lyophilized

Buffer: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0).  
Normally 5 % - 8 % trehalose is added as protectants before lyophilization.

Storage: -20 °C, -80 °C

Storage Comment: Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing).  
Lyophilized proteins are shipped at ambient temperature.

Expiry Date: 12 months