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## Datasheet for ABIN7538217 DRD4 Protein

### Overview

Quantity:	50 µg
Target:	DRD4
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

### Product Details

Purpose:	Human DRD4 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:	DRD4
Alternative Name:	DRD4 ( <a href="#">DRD4 Products</a> )
Background:	This gene encodes the D4 subtype of the dopamine receptor. The D4 subtype is a G-protein coupled receptor which inhibits adenylyl cyclase. It is a target for drugs which treat schizophrenia and Parkinson disease. Mutations in this gene have been associated with various behavioral phenotypes, including autonomic nervous system dysfunction, attention deficit/hyperactivity disorder, and the personality trait of novelty seeking. This gene contains a

## Target Details

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polymorphic number (2-10 copies) of tandem 48 nt repeats, the sequence shown contains four repeats. [provided by RefSeq, Jul 2008]

Molecular Weight: The human full length DRD4 protein has a MW of 43.9kDa

UniProt: [P21917](#)

Pathways: [cAMP Metabolic Process](#), [Synaptic Membrane](#), [Proton Transport](#), [Photoperiodism](#), [Negative Regulation of Transporter Activity](#)

## 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