

## Recombinant Human DCX Protein (aa 45-150, GST Tag)

**Catalog Number:** PKSH030620

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

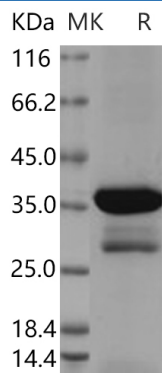
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human DCX protein Ala 45-Val 150, with an N-terminal GST
<b>Calculated MW</b>	39.4 kDa
<b>Observed MW</b>	36 kDa
<b>Accession</b>	O43602-2
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 82 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Please contact us for more information.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 1mM DTT, 10% glycerol, pH 7.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
<b>Reconstitution</b>	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

### Data



> 82 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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DCX (doublecortin, N-GST chimera) contains 2 doublecortin domains and belongs to the doublecortin family. It is highly expressed in neuronal cells of fetal brain, but not expressed in other fetal tissues. In the adult, it is highly expressed in the brain frontal lobe, but very low expression in other regions of brain, and not detected in heart, placenta, lung, liver, skeletal muscles, kidney and pancreas. DCX is a microtubule-associated protein required for initial steps of neuronal dispersion and cortex lamination during cerebral cortex development. It may act by competing with the putative neuronal protein kinase DCAMKL1 in binding to a target protein. DCX may in that way participate in a signaling pathway that is crucial for neuronal interaction before and during migration, possibly as part of a calcium ion-dependent signal transduction pathway. It may be part with LIS-1 of a overlapping, but distinct, signaling pathways that promote neuronal migration. Defects in DCX are the cause of lissencephaly X-linked type 1 and subcortical band heterotopia X-linked.