

DESCRIPTION

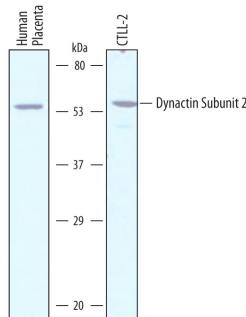
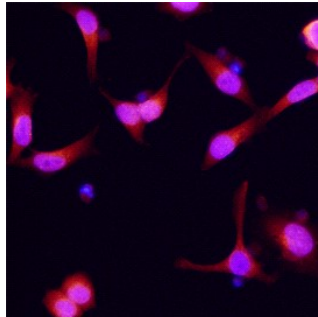
Species Reactivity	Human/Mouse
Specificity	Detects human Dynactin Subunit 2/DCTN2 in direct ELISAs and human and mouse Dynactin Subunit 2/DCTN2 in Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human DCTN1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Dynactin Subunit 2/DCTN2 Asp277-Lys401 Accession # Q13561
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human and Mouse Dynactin Subunit 2/DCTN2 by Western Blot. Western blot shows lysates of human placenta tissue and CTLL-2 mouse cytotoxic T cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Dynactin Subunit 2/DCTN2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6850) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Dynactin Subunit 2/DCTN2 at approximately 54 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>Dynactin Subunit 2/DCTN2 in HeLa Human Cell Line. Dynactin Subunit 2/DCTN2 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Sheep Anti-Human Dynactin Subunit 2/DCTN2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6850) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

DCTN-2 (Dynactin-2; also 50 kDa dynein-associated polypeptide and p50 dynamitin) is a 50 kDa intracellular member of the dynactin subunit 2 family of phosphoproteins. It is ubiquitously expressed and serves to stabilize the dynactin complex of 11 different proteins. This complex is an obligate cofactor of dynein and kinesin motors, which position the mitotic spindle for cell division, and move vesicles within the cell. Human DCTN-2 is 401 amino acids (aa) in length. It contains three coiled-coil regions (aa 99-132, 214-244 and 379-399), two potential phosphorylation sites (Ser83 and Tyr86), and one acetylation site at Ala2. The first two coiled-coil regions contribute to oligomerization, while aa 1-91 are essential for dynactin regulation. Potential isoform variants utilize either a five or two aa insertion after Ala35, an alternative start site at Met88, and a 21 aa substitution for aa 118-401. Over aa 277-401, human DCTN-2 shares 95% aa identity with mouse DCTN-2.