

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse                                                                                                                                                                                                                                                                 |
| <b>Specificity</b>        | 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.                                                            |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Dynactin Subunit 2/DCTN2<br>Asp277-Lys401<br>Accession # Q13561                                                                                                                                                                   |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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.

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