

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human DOCK3 in direct ELISAs. In direct ELISAs, less than 3% cross-reactivity with recombinant human (rh) DOCK1, rhDOCK2, and rhDOCK5 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human DOCK3 Gly418-Thr656 Accession # Q8IZD9
<b>Conjugate</b>	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide  *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.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

DOCK3 (Dedicator of cytokinesis protein 3; also MOCA and PBP) is a 230-240 kDa member of the DOCK family, DOCK180 superfamily of proteins. DOCK3 expression appears to be restricted to neurons where it binds to Rac1 in conjunction with WAVE1, enhancing both Rac1 activity and that of downstream JNK. This results in cytoskeleton rearrangement and the promotion of axonal outgrowth. DOCK3 also binds to  $\beta$ -catenin, thereby inhibiting Wnt signaling and promoting cell adhesion. Human DOCK3 is 2030 amino acids (aa) in length. It contains one protein-interaction SH3 domain (aa 7-650), a DHR-1 region that localizes DOCK3 to cell membranes (aa 418-654), a DHR-2 domain that likely binds to nucleotide-free GTPases and shows GEF activity (aa 1122-1630), and one SH3-binding motif (aa 1970-1976). There is one phosphorylation site at Ser2013 and, unlike DOCK180, DOCK3 is known to form intracellular aggregates. There are three potential isoform variants. Two result from the use of alternative start sites at Met346 and Met388, while a third shows a deletion of aa 106-123 coupled to a Gly substitution for aa 184-2030. Over aa 418-656, human DOCK3 shares 99% aa identity with mouse DOCK3.

## PRODUCT SPECIFIC NOTICES

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