

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse/Rat                                                                                                                          |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse and rat DARC in Western blots.                                                                                       |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                                               |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                          |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant mouse DARC<br>Met1-Pro61, Ala115-Cys127, Ser186-Lys205, Tyr264-Asn285<br>Accession # NP_034175 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>CyTOF-ready</b>          | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Flow Cytometry</b>       | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</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

DARC (Duffy Antigen Receptor for Chemokines; also CD234) is a 40-46 kDa glycoprotein member of the Duffy family of silent heptahelical chemokine receptors. It is expressed in liver and on select neurons, erythrocytes and the endothelium of postcapillary venules. Unlike traditional chemokine receptors, DARC cannot signal through G-proteins as it lacks a DRYLAIVHA cytoplasmic motif. DARC has three potential functions: first, it binds circulating inflammatory-type chemokines, serving as a repository for future chemokine release; second, it acts as a vehicle by which chemokines are transported from the abluminal to the luminal side of endothelium; and third, it complexes with signal-transducing chemokine receptors to create a non-signaling heterodimer. Mouse DARC is 334 amino acids (aa) in length. It contains a 62 aa N-terminal extracellular region, and a 28 aa C-terminal cytoplasmic tail. There is one potential splice variant that shows a 42 aa substitution for aa 133-334. Collectively, over the four extracellular domains (aa 1-62, 115-127, 186-205, 264-285), mouse DARC shares 52% and 75% aa identity with human and rat DARC, respectively.

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