

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PAR2. Stains human PAR2 transfectants but not irrelevant transfectants.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 344222
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	NS0 mouse myeloma cell line transfected with human PAR2 Accession # P55085
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

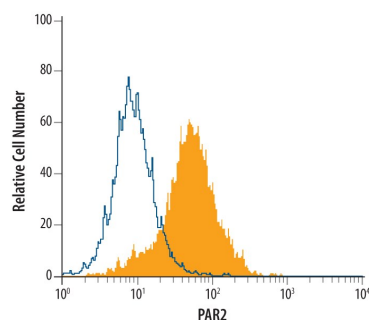
## APPLICATIONS

**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>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

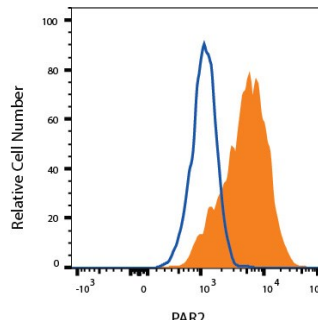
## DATA

### Flow Cytometry



**Detection of PAR2 in HT-29 Human Cell Line by Flow Cytometry.** HT-29 human colon adenocarcinoma cell line was stained with Mouse Anti-Human PAR2 Monoclonal Antibody (Catalog # MAB3949, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG F(ab')<sub>2</sub> Secondary Antibody (Catalog # F0102B).

### Flow Cytometry



**Detection of PAR2 in PC-3 cells by Flow Cytometry.** PC-3 cells were stained with Mouse Anti-Human PAR2 Monoclonal Antibody (Catalog # MAB3949, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for [Staining Membrane-associated Proteins](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Protease-Activated Receptor 2 (PAR2) is a protease activated 7-transmembrane G-protein-coupled receptor. Human PAR2 contains a cleavage site for trypsin, mast cell tryptase or coagulation factor VIIa or Xa, 11 amino acids (aa) C-terminal to the signal sequence. Cleavage creates a tethered ligand that activates the 361 aa receptor. PAR2 is expressed in kidney, pancreas, stomach, intestine, airway, skin, bladder and brain; activation stimulates release of inflammatory and nociceptive mediators. PAR2 is downregulated by ubiquitination, endocytosis and degradation. Mature human PAR2 shows 78% amino acid identity with mouse PAR2 over the extracellular portions.