

Recombinant HPGD/15-PGDH Monoclonal Antibody

catalog number: **AN300028P**

Note: Centrifuge before opening to ensure complete recovery of vial contents.

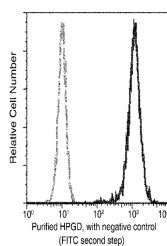
Description

Reactivity	Human
Immunogen	Recombinant Human HPGD / 15-PGDH protein
Host	Rabbit
Isotype	IgG
Clone	7F11
Purification	Protein A
Buffer	0.2 µm filtered solution in PBS

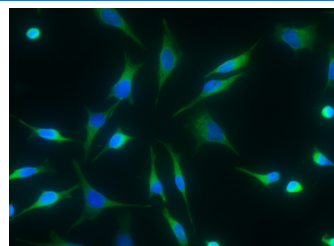
Applications

Applications	Recommended Dilution
ICC/IF	1:20-1:100
FCM	1:25-1:100

Data



Flow cytometric analysis of Human HPGD expression on Jurkat cells. The cells were stained with purified anti-Human HPGD, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.



Immunofluorescence staining of Human HPGD in Hela cells. Cells were fixed with 4% PFA, permeabilized with 1% Triton X-100 in PBS, blocked with 10% serum, and incubated with Rabbit anti-Human HPGD Monoclonal Antibody (1:60) at 37°C 1 hour. Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI for nuclear staining (blue). Positive staining was localized to cytoplasm.

Preparation & Storage

Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

For Research Use Only

15-hydroxyprostaglandin dehydrogenase [NAD⁺], also known as Prostaglandin dehydrogenase 1, HPGD, and PGDH1, is a member of the short-chain dehydrogenases/reductases (SDR) family. Prostaglandins (PGs) play a key role in the onset of labor in many species and regulate uterine contractility and cervical dilatation. Therefore, the regulation of prostaglandin output by PG synthesizing and metabolizing enzymes in the human myometrium may determine uterine activity patterns in human labor both at preterm and at term. Prostaglandin dehydrogenase (PGDH) metabolizes prostaglandins (PGs) to render them inactive. HPGD is down-regulated by cortisol, dexamethasone, and betamethasone and down-regulated in colon cancer. It is up-regulated by TGFβ1. HPGD contributes to the regulation of events that are under the control of prostaglandin levels. HPGD catalyzes the NAD-dependent dehydrogenation of lipoxin A4 to form 15-oxo-lipoxin A4, and inhibits in vivo proliferation of colon cancer cells. Defects in HPGD are the cause of primary hypertrophic osteoarthropathy autosomal recessive (PHOAR), cranio-osteoarthropathy (COA), and isolated congenital nail clubbing.