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HPGD Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6794b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P15428
Other Accession	Q8MJY8
Reactivity	Human, Rat, Mouse
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19375
Calculated MW	28977
Antigen Region	184-212

Additional Information

Gene ID	3248
Other Names	15-hydroxyprostaglandin dehydrogenase [NAD(+)], 15-PGDH, Prostaglandin dehydrogenase 1, HPGD, PGDH1
Target/Specificity	This HPGD antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 184-212 amino acids from the C-terminal region of human HPGD.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HPGD Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HPGD (HGNC:5154)
Synonyms	PGDH1, SDR36C1

Function	Catalyzes the NAD-dependent dehydrogenation (oxidation) of a broad array of hydroxylated polyunsaturated fatty acids (mainly eicosanoids and docosanoids, including prostaglandins, lipoxins and resolvins), yielding their corresponding keto (oxo) metabolites (PubMed:10837478, PubMed:16757471, PubMed:16828555, PubMed:21916491, PubMed:25586183, PubMed:8086429). Decreases the levels of the pro- proliferative prostaglandins such as prostaglandin E2 (whose activity is increased in cancer because of an increase in the expression of cyclooxygenase 2) and generates oxo-fatty acid products that can profoundly influence cell function by abrogating pro-inflammatory cytokine expression (PubMed:15574495, PubMed:25586183). Converts resolvins E1, D1 and D2 to their oxo products, which represents a mode of resolvin inactivation. Resolvin E1 plays important roles during the resolution phase of acute inflammation, while resolvins D1 and D2 have a unique role in obesity-induced adipose inflammation (PubMed:16757471, PubMed:22844113).
Cellular Location	Cytoplasm.
Tissue Location	Detected in colon epithelium (at protein level).

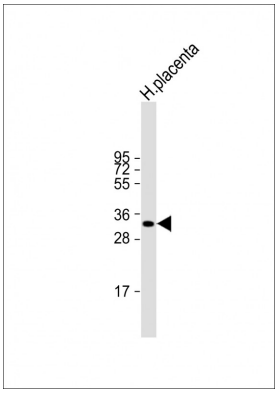
Background

HPGD is a member of the short-chain nonmetalloenzyme alcohol dehydrogenase protein family. This protein is responsible for the metabolism of prostaglandins, which function in a variety of physiologic and cellular processes such as inflammation.

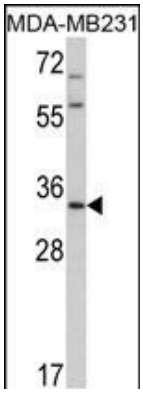
References

Thill,M., et.al., Anticancer Res. 29 (9), 3619-3625 (2009)

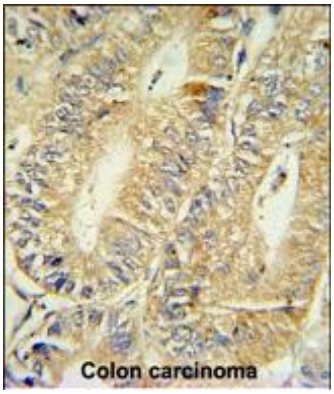
Images



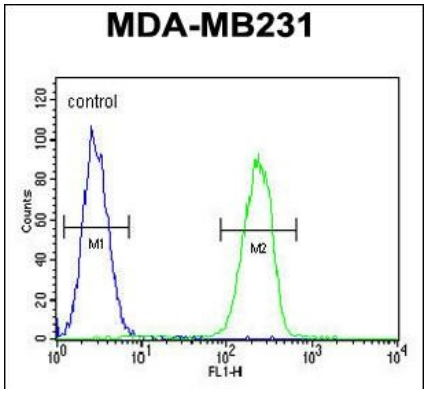
Anti-HPGD Antibody (C-term) at 1:2000 dilution + human placenta lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 29 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of HPGD Antibody (C-term) (Cat. #AP6794b) in MDA-MB231 cell line lysates (35ug/lane). HPGD (arrow) was detected using the purified Pab.



HPGD Antibody (C-term) (Cat. #AP6794b) IHC analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the HPGD Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



HPGD Antibody (C-term) (Cat. #AP6794b) flow cytometric analysis of MDA-MB231 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.