

# Mouse FGF-8b Isoform Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF-423-NA

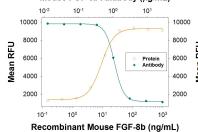
DESCRIPTION			
Species Reactivity	•		
Specificity			
Source	Polyclonal Goat IgG		
Purification	Antigen Affinity-purified		
Immunogen	E. coli-derived recombinant mouse FGF-8b Gln23-Arg215 Accession # NP_006110		
Endotoxin Level	<0.10 EU per 1 μg of the antibody by the LAL method.		
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.		

ase Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website

	Recommended Concentration	Sample
Western Blot	0.1 μg/mL	Recombinant Mouse FGF-8b Isoform (Catalog # 423-F8)
Immunohistochemistry	5-15 μg/mL	See Below
Neutralization	Measured by its ability to neutralize FGF-8-induced proliferation in the NR6R-3T3 mouse fibroblast cell line. Rizzino, A. <i>et al.</i> (1988) Cancer Res. <b>48</b> :4266. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.4-2.4 μg/mL in the	

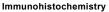
presence of 60 ng/mL Recombinant Mouse FGF-8b Isoform and 1 µg/mL heparin.

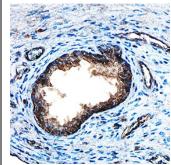
## Neutralization Mouse FGF-8b Antibody (μg/mL)



Cell Proliferation Induced by FGF-8 and Neutralization by Mouse FGF-8 Antibody.

Recombinant Mouse FGF-8b Isoform (Catalog # 423-F8) stimulates proliferation in the the NR6R-3T3 mouse fibroblast cell line in a dose-dependent manner (orange line), as measured by Resazurin (Catalog # AR002) Proliferation elicited by Recombinant Mouse FGF-8b Isoform (60 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse FGF-8b Isoform Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-423-NA). The ND<sub>50</sub> is typically 0.4-2.4 µg/mL in the presence of heparin (1 µg/mL).





FGF-8 in Human Prostate. FGF-8 was detected in immersion fixed paraffinembedded sections of human prostate using Goat Anti-Mouse FGF-8 b Isoform Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-423-NA) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to epithelial and endothelial cells. View our protocol for Chromogenic IHC Staining of Paraffinembedded Tissue Sections.

### PREPARATION AND STORAGE

Reconstitute at 0.2 mg/mL in sterile PBS. Reconstitution

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. \*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

### Stability & Storage

### Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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#### BACKGROUND

FGF-8 is a member of the fibroblast growth factor family that was originally discovered as a growth factor essential for the androgen-dependent growth of mouse mammary carcinoma cells (1-3). Alternate splicing of mouse FGF-8 mRNA generates eight secreted isoforms, designated a-h, but only FGF-8a, b, e and f exist in humans (4). FGF-8 contains a 22 amino acid (aa) signal sequence, an N-terminal domain that varies according to the isoform (30 aa for FGF-8b; 20 aa for the shortest, FGF-8a), a 125 aa FGF domain and a 37 aa proline-rich C-terminal sequence. The FGF domain of FGF-8 shares the most aa identity with FGF17 (75%) and FGF-18 (67%), and the three form an FGF subfamily (2). Mouse FGF-8b shares 100% aa identity with human FGF-8b. FGF-8 is widely expressed during embryogenesis, and mediates epithelial-mesenchymal transitions. It plays an organizing and inducing role during gastrulation, and regulates patterning of the midbrain/hindbrain, eye, ear, limbs and heart in the embryo (2, 5-8). The isoforms may play different roles in development. FGF-8b shows the strongest receptor affinity and oncogenic transforming capacity although FGF-8a and FGF-8e are also transforming and have been found in human prostate, breast or ovarian tumors (1, 5, 9-12). FGF-8 shows limited expression in the normal adult, but low levels are found in the reproductive and genitourinary tract, peripheral leukocytes and bone marrow hematopoietic cells (3, 9, 13).

#### References:

- 1. Mattila, M.M. and P.L. Harkonen (2007) Cytokine Growth Factor Rev. 18:257.
- 2. Reuss, B. and O. von Bohlen und Halbach (2003) Cell Tiss. Res. 313:139.
- 3. Tanaka, A. et al. (1992) Proc. Natl. Acad. Sci. USA 89:8928.
- 4. Gemel, J. et al. (1996) Genomics 35:253.
- Olsen, S.K. et al. (2006) Genes Dev. 20:185.
- 6. Crossley, P.H. et al. (1996) Cell, 84:127.
- 7. Heikinheimo, M. et al. (1994) Mech. Dev. 48:129.
- 8. Sun, X. et al. (1999) Genes Dev. 13:1834.
- 9. Ghosh, A.K. et al. (1996) Cell Growth Differ. 7:1425.
- 10. Mattila, M.M. et al. (2001) Oncogene 20:2791.
- 11. Valve, E. et al. (2000) Int. J. Cancer 88:718.
- 12. Valve, E.M. et al. (2001) Lab. Invest. 81:815.
- 13. Nezu, M. et al. (2005) Biochem. Biophys. Res. Commun. 335:843.