



**FabGennix Inc.**  
INTERNATIONAL

New Item  
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### Serotonin (5Hydroxytryptamine) Receptor Antibodies

#### Anti-5 Hydroxytryptamine 1B (5HT1B) receptor antibodies Cat # 5HT1B-201AP

The serotonergic system is involved in both pathophysiology and treatment of addiction, depression or mood disorders, appetite control, cardiovascular function, motility of GI tract and sexual function. Serotonin (5-HT) has long been implicated in a number of neurodevelopmental processes including neuronal cell division, migration, neurite outgrowth, and synapse formation which regulate and control some of the above physiological manifestations. Molecular cloning of 5HT receptors have identified a family of closely related genes that encodes several proteins with extensive splice variants exhibiting high degree of amino acid homology (45%-65%) all in the molecular weight range of 40-60 kDa. In brain the 5HT1A binding sites are tightly coupled to oestrous cycle and sex hormone levels (1). Serotonin receptors, also known as 5HT receptors are G-protein coupled receptors (7 transmembrane domains) that elicit the serotonin mediated effects on the above diverse physiological functions. There are at least 7 members of 5HT receptors (5HT1-5HT7), the 5HT1 is further divided in to 6 subtypes (5HT1A-5HT1F) each with multiple variants expressed as a results of alternate splicing or use of alternate initiation codons. Serotonin is reabsorbed by serotonin reuptake transporter which is coupled to sodium/calcium pump.

5HT1A receptors are grouped among the GPCR with characteristic 7TMD. There are several variants isoform of the 5HT1A receptors (5HT1A-5HT1E). The type if signal transduction could be excitatory or inhibitory depending upon the receptor functional coupling to the signal transduction complex. Certain beta arrestins are co-localized with 5HT receptors, where they act in concert with Bark1 or GRK1 and GRK 2 to regulate the expression of the GPCRs. All 5HT receptor proteins are glycosylated at or near the C-terminus and are present on either cell surface or in intracellular sites. Some transporters exhibit dynamic trafficking between intracellular storage sites and plasma membranes in response to various stimuli. 5HT receptors are believed to be associated with other proteins including members of the dopamine receptors and opiod receptors resulting in a significant increase in their apparent molecular weight.

The 5HT receptor family-selective antibodies were generated against unique peptides selected form particular 5HT receptor isoform.

FabGennix Inc. has generated highly specific rabbit anti-5HT1A receptor polyclonal antibodies utilizing unique sequences. These antibodies have been fully characterized for cross reactivity with in the 5HT receptor family and with other cellular proteins. FabGennix Inc. has produced

Receptor	Remarks (1)
5HT1A	there are 7 variants 5HT1A-5HT1F, present in brain
5HT2	5HT2A and 5HT2B, there are some other variants
5HT3	Brain (striatum, hypothalamus, VTA, etc), pituitary, peripheral tissues
5HT4	CNS, pituitary, adrenals
5HT5	CNS, pituitary, adrenals, kidneys
5HT6	CN, pituitary
5HT7	CNS, pituitary

antibodies to multiple epitopes on the same protein that will facilitate studies utilizing interspecies cross reactivity.

*FabGennix Inc.* provides 5HT1A Western blot positive control in "ready-to-use" SDS-PAGE sample buffer. The PC-5HT1A positive control appears as a diffuse band of 49-55 kDa and co-migrates with rat 5HT1A receptor protein on a 10% SDS-PAGE.

#### Ordering Information:

Catalog #	Description	Host	Cross reactivity	Qty/Price
5HT1B-201AP	Affinity purified 5HT1B antibodies	Rabbit	R, M, others	200ul
P-5HT1B	Antigenic blocking peptide for 5HT1B-201AP	n/a	n/a	100ul
PC-5HT1B	Western blot positive control for 5HT1B	n/a	n/a	5 appl.

R = rat; M = mouse; H = humans; P= Pig; EC = Extracytoplasmic sequence; IC = intracytoplasmic seq. appl = applications

Immunogens: 5HT1B-201AP

Applications: ELISA Antibody dilution 1:50K for ELISA or DOT blot with PC-5HT1A.

W.B

Antibody dilution 1:2.5K-5K for WB using 100 µg protein from rat striatal membranes. IMM, 4 µl of 5HT1A receptor antibody (5HT1A-101AP) will immunoprecipitate 65-75% 5HT1A receptor protein from solubilized COS1 cells transfected with 5HT1A cDNA. IHC; n.d

Reactivity

The dopamine D1 receptor antibodies label dopamine D1 receptor protein from COS1 cells transfected with dopamine D1 receptor cDNA as an average 45-47 kDa molecular weight protein.

Protocols:

Standard protocol for various applications (WB, IMM, IHC) for this antibody is provided with the product specification sheet, however, FabGennix Inc. strongly recommends investigators to optimize conditions for use of this antibody in their laboratories.

Form/Storage:

The antiserum is supplied in antibody stabilization buffer with preservatives. The affinity purified antibodies are isolated on antigen-affinity column. For long-term storage, keep at -20°C. FabGennix Inc. does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DiluOBuffer).

Working solutions of antibodies in DiluOBuffer should be filtered through 0.45µ syringe filter after every use for long-term storage.

#### References:

1. Flugge G, Pfender D, Rudolph S, Jarry H, Fuchs E. 5HT1A-receptor binding in the brain of cyclic and ovariectomized female rats. *J Neuroendocrinol.* 1999 Apr;11(4):243-9.

\*Note: Do not heat or boil PC-5HT1A samples. After thawing at room temperature, this product is "ready-to-use" for electrophoresis. Repeated freezing and thawing may result in appearance of higher molecular weight immunoreactive bands.

\* For users who may require large amounts of 5HT1A-101AP, please enquire about bulk material discounts.

This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

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