

# Product Datasheet

## 5-HT7 Antibody - BSA Free

### NB100-56352

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NB100-56352**

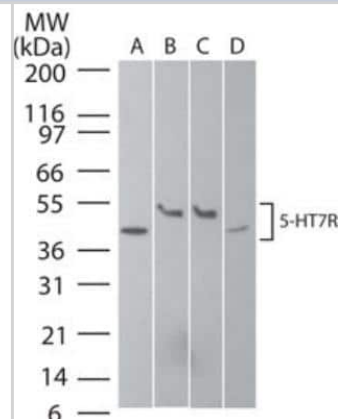
5-HT7 Antibody - BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	54 kDa
Product Description	
Host	Rabbit
Gene ID	3363
Gene Symbol	HTR7
Species	Human, Mouse, Rat, Canine
Reactivity Notes	This sequence is identical for 5-HT7R splice variants in the rat (5-HT7Ra/b/c), human (5-HT7Ra/b/d) and human 5-HT7, the mouse 5-HT7R. It is 93% conserved with canine 5-HT7Ra/b, and 81% conserved with porcine 5-HT7R.
Specificity/Sensitivity	The 5HT7 antibody recognizes all described 5HT7 receptor splice variants.
Immunogen	This antibody was developed by immunizing rabbits with a mixture of synthetic peptides corresponding to amino acids 13-28 of the rat 5-HT7R (AAA42134.1).
Product Application Details	
Applications	Western Blot, Simple Western, Flow Cytometry, Immunocytochemistry/Immunofluorescence
Recommended Dilutions	Western Blot 1-2 ug/ml, Simple Western, Flow Cytometry reported in scientific literature (PMID 30602786), Immunocytochemistry/ Immunofluorescence 1:10-1:2000. Use reported in scientific literature (PMID 17940054)

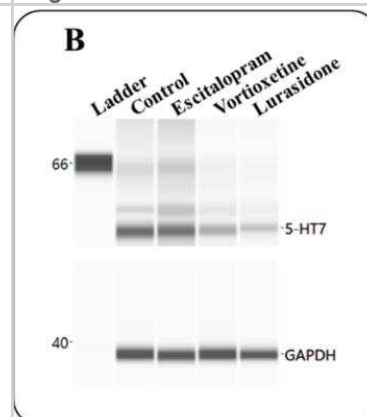


## Images

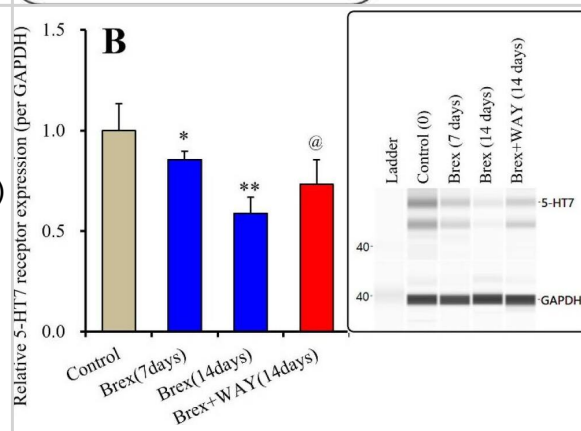
Western Blot: 5-HT7 Antibody [NB100-56352] - Analysis of 5-HT7R in A) human brain, B) mouse brain, C) rat brain, and D) human SK-N-SH neuroblastoma cell lysate using this antibody.



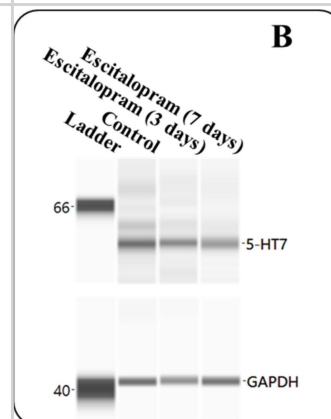
Simple Western: 5-HT7 Antibody [NB100-56352] - Panel (B) indicates the pseudo-gel images using capillary immunoblotting. \*  $p < 0.05$ , \*\*  $p < 0.01$  vs. the control by Student's t-test. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/33572981/>) licensed under a CC-BY license.



Western Blot: 5-HT7 Antibody [NB100-56352] - Effects of subchronic administration (7 and 14 days) of therapeutic relevant concentration of Brex (Brex: 300 nM) and interaction between Brex and 5-HT1A receptor (5-HT1AR) antagonist WAY100635 (WAY: 10  $\mu$ M) on protein expression of 5-HT7 receptor in the plasma membrane fraction of cortical primary cultured astrocytes. In left side histograms, ordinate: mean  $\pm$  SD ( $n = 6$ ) of the relative protein level of 5-HT7R per GAPDH. \*  $p < 0.05$ , \*\*  $p < 0.01$ : relative to control (Brex-free) by one-way analysis of variance (ANOVA) with Tukey's post-hoc test, and @  $p < 0.05$ : relative to Brex for 14 days by Student's T-test. Right side panels indicate their pseudo-gel images using capillary immunoblotting. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35743014/>) licensed under a CC-BY license.



Simple Western: 5-HT7 Antibody [NB100-56352] - Time-dependent effects of subacute administration of effective dose of escitalopram (5 mg/kg/day) for 3 & 7 days on expression of 5-HT7R in the thalamic plasma membrane fraction (Panel (A)). Ordinate: mean  $\pm$  SD ( $n = 6$ ) of the relative protein level of 5-HT7R in the thalamic plasma membrane fraction. Panel (B) indicates the pseudo-gel images using capillary immunoblotting. \*\*  $p < 0.01$  vs. control by one-way analysis of variance with Tukey's post-hoc test. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/33572981/>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

T Shiroyama, K Fukuyama, M Okada Distinct Effects of Escitalopram and Vortioxetine on Astroglial L-Glutamate Release Associated with Connexin43 International Journal of Molecular Sciences, 2021-09-16;22(18):. 2021-09-16 [PMID: 34576176]

Yang JS, Gao FF, Yang XX et al. The 5-HT7 receptors in the VLO contribute to the development of morphine-induced behavioral sensitization in rats Neurochemistry international 2023-06-18 [PMID: 37339717] (WB, Rat)

Details:  
1:100 dilution

Okada M, Fukuyama K, Motomura E Dose-Dependent Biphasic Action of Quetiapine on AMPK Signalling via 5-HT7 Receptor: Exploring Pathophysiology of Clinical and Adverse Effects of Quetiapine International journal of molecular sciences 2022-08-14 [PMID: 36012369] (Simple Western, Rat)

Details:  
Dilution used 1:300

Fukuyama K, Motomura E, Okada M Brexpiprazole Reduces 5-HT7 Receptor Function on Astroglial Transmission Systems International journal of molecular sciences 2022-06-12 [PMID: 35743014] (Simple Western, WB, Rat)

Fukuyama K, Motomura E, Shiroyama T, Okada M Impact of 5-HT7 receptor inverse agonism of lurasidone on monoaminergic tripartite synaptic transmission and pathophysiology of lower risk of weight gain Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie 2022-02-24 [PMID: 35219120] (WB, Rat)

Chaudhary P, Guragain D, Chang J, Kim J TPH1 and 5-HT7 Receptor Overexpression Leading to Gemcitabine-Resistance Requires Non-Canonical Permissive Action of EZH2 in Pancreatic Ductal Adenocarcinoma Cancers 2021-10-22 [PMID: 34771469] (WB, Human)

Okada M, Matsumoto R, Yamamoto Y, Fukuyama K Effects of Subchronic Administrations of Vortioxetine, Lurasidone, and Escitalopram on Thalamocortical Glutamatergic Transmission Associated with Serotonin 5-HT7 Receptor International journal of molecular sciences 2021-01-29 [PMID: 33572981] (WB, Rat)

Tempio A, Niso M, Laera L et al. Mitochondrial Membranes of Human SH-SY5Y Neuroblastoma Cells Express Serotonin 5-HT7 Receptor International journal of molecular sciences 2020-12-17 [PMID: 33348850] (WB, Human)

Volpicelli F, Speranza L, Pulcrano S et al. The microRNA-29a Modulates Serotonin 5-HT7 Receptor Expression and Its Effects on Hippocampal Neuronal Morphology Mol. Neurobiol. 2019-07-10 [PMID: 31292861] (WB, Mouse)

Ito M, Komai K, Mise-Omata S Brain regulatory T cells suppress astrogliosis and potentiate neurological recovery Nature 2019-01-02 [PMID: 30602786] (FLOW, Mouse)

Wixey JA, Reinebrant HE, Chand KK, Buller KM. Disruption to the 5-HT7 Receptor Following Hypoxia-Ischemia in the Immature Rodent Brain Neurochem. Res. 2018-01-22 [PMID: 29357019] (WB, Rat)

Gautam J, Banskota S, Regmi SC et al. Tryptophan hydroxylase 1 and 5-HT7 receptor preferentially expressed in triple-negative breast cancer promote cancer progression through autocrine serotonin signaling. Mol. Cancer. 2016-11-21 [PMID: 27871326] (WB, Human)

More publications at <http://www.novusbio.com/NB100-56352>





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### **Products Related to NB100-56352**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP2-68957PEP	5-HT7 Recombinant Protein Antigen

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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