

# Product Datasheet

## MAT1/2A Antibody - BSA Free NB110-94162

Unit Size: 0.1 ml

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

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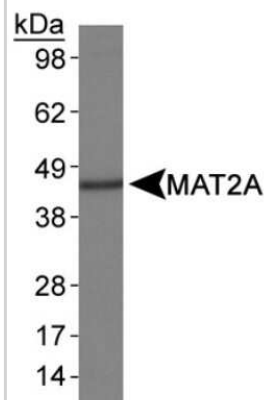
**NB110-94162**

MAT1/2A Antibody - BSA Free

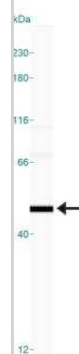
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS and 30% Glycerol
Target Molecular Weight	43 kDa
Product Description	
Description	Novus Biologicals Rabbit MAT1/2A Antibody - BSA Free (NB110-94162) is a polyclonal antibody validated for use in WB and Simple Western. Anti-MAT1/2A Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	4144
Gene Symbol	MAT2A
Species	Human, Rat, Bovine, Primate, Zebrafish, Mouse (Negative)
Reactivity Notes	Orangutan. Does not react with mouse.
Immunogen	Synthetic peptide made to an internal portion of the human MAT2A protein (within residues 100-200). [Swiss-Prot# P31153]
Product Application Details	
Applications	Western Blot, Simple Western
Recommended Dilutions	Western Blot 2 ug/ml, Simple Western 1:10
Application Notes	<p>This MAT1/2A antibody is useful for Western blot, where a band is seen at approx. 43 kDa.</p> <p>In Simple Western only 10 - 15 uL of the recommended dilution is used per data point.</p> <p>See <a href="#">Simple Western Antibody Database</a> for Simple Western validation: Tested in HepG2 lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:10, apparent MW was 74 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.</p> <p>The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.</p>

## Images

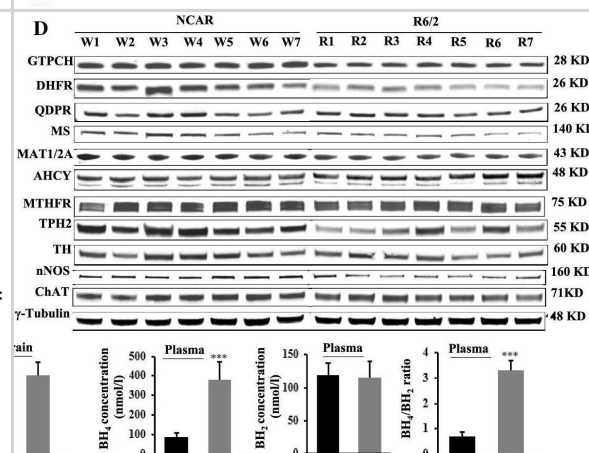
Western Blot: MAT1/2A Antibody [NB110-94162] - Detection of MAT2A in HepG2 whole cell lysates using NB110-94162.



Simple Western: MAT1/2A Antibody [NB110-94162] - Simple Western lane view shows a specific band for MAT1/2 A in 0.5 mg/ml of HepG2 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



C1 metabolic pathway and characterization of R6/2 mice. A Folate, Met and BH4 cycles in plants and animals and their associated metabolism. Red lines stand for mammal specific, green lines stand for plant specific while black lines stand for both. All enzymes with protein levels examined by immunoblotting are marked in red. B mHtt protein aggregates in cortex and striatum regions were detected with anti-Htt antibody (mEM48) in 4-week-old male R6/2 and NCAR mice. C, D Quantification analysis of immunoblotting results of GTPCH, DHFR, QDPR, MS, MAT1/2A, AHCY, MTHFR, TPH2, TH, nNOS and ChAT (n = 7). The band intensity of each protein from western blotting D was normalized with  $\gamma$ -tubulin on the same blot. The ratio was further calculated against NCAR whose relative expression level was set as 1. All data plotted are the average (n = 7)  $\pm$  SD. Only one representative western blotting of  $\gamma$ -tubulin is shown. Original blots of above proteins before cropping are presented in Fig. S11. E Contents of BH4 and BH2, and their ratio in brain tissues and plasma (n = 4, average  $\pm$  SD). \*p < 0.05; \*\*p < 0.01. \*\*\*p < 0.001. Abbreviations used for enzymes: AHCYS-adenosylhomocysteine hydrolase, ChAT choline acetyltransferase, DHFR dihydrofolate reductase, GTPCH GTP cyclohydrolase I, MAT1/2A methionine adenosyltransferase, MS methionine synthase, MTHFR methylene-tetrahydrofolate reductase, nNOS neuronal nitric oxide synthase, QDPR quinoid dihydropteridine reductase, TH tyrosine hydroxylase (Tyr), TPH2 tryptophan hydroxylase Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36251090>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Hung CY, Zhu C, Kittur FS et al. A plant-based mutant huntingtin model-driven discovery of impaired expression of GTPCH and DHFR Cellular and molecular life sciences : CMLS 2022-10-17 [PMID: 36251090] (WB, Mouse)

Navik U, Sheth VG, Kabeer SW, Tikoo K Dietary Supplementation of Methyl Donor L-Methionine Alters Epigenetic Modification in Type 2 Diabetes Mol Nutr Food Res 2019-09-18 [PMID: 31532875]



## Procedures

### Western Blot protocol for MAT1/2A Antibody (NB110-94162)

MAT1/2A Antibody:

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH<sub>2</sub>O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% NFD<sub>M</sub> + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH<sub>2</sub>O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-MAT1/2A primary antibody (NB 110-94162) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH<sub>2</sub>O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.





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### **Products Related to NB110-94162**

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NBL1-12910	MAT2A Overexpression Lysate
NB110-94162PEP	MAT1/2A Antibody Blocking Peptide
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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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