

ASMT (N-20): sc-83864

BACKGROUND

Melatonin is a naturally occurring secreted hormone that exhibits antioxidant capabilities and is crucial in the proper regulation of the circadian rhythm. ASMT (acetylserotonin O-methyltransferase), also known as HIOMT (hydroxyindole O-methyltransferase), is a 345 amino acid protein that belongs to the methyltransferase superfamily and is involved in melatonin biosynthesis. Expressed in brain, retina and pineal gland, ASMT functions to catalyze the final reaction in the synthesis of melatonin, specifically the conversion of S-adenosyl-L-methionine and N-acetylserotonin to S-adenosyl-L-homocysteine and melatonin. Multiple isoforms of ASMT exist due to alternative splicing events. The gene encoding ASMT maps to the pseudoautosomal region of chromosomes X and Y.

REFERENCES

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3. Cavallo, A. 1993. The pineal gland in human beings: relevance to pediatrics. *J. Pediatr.* 123: 843-851.
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CHROMOSOMAL LOCATION

Genetic locus: ASMT (human) mapping to Xp22.33, Yp11.32.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

SOURCE

ASMT (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of ASMT of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83864 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ASMT (N-20) is recommended for detection of ASMT of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ASMT siRNA (h): sc-91581, ASMT shRNA Plasmid (h): sc-91581-SH and ASMT shRNA (h) Lentiviral Particles: sc-91581-V.

Molecular Weight of ASMT: 38 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.