BACKGROUND

Tryptophan is an amino acid essential in human nutrition that contains an indole functional group. Kynurenine is a metabolite of tryptophan and is used in the production of niacin, also known as nicotinic acid or vitamin B3. Niacin plays an essential role in energy metabolism, DNA repair, removing toxic chemicals from the body and assisting in the production of steroid hormones made by the adrenal gland. Elevated plasma levels of kynurenine has been associated with sudden, repetitive, stereotyped, nonrhythmic, involuntary movement. Kynurenine has a molecular mass of 208.2 g/mol. Kynurenine is converted into anthranilic acid in a process catalyzed by the enzyme kynureninase. Anthranilic acid can then be used in organic synthesis to generate the benzoyl intermediate.

REFERENCES


STORAGE

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

PRODUCT

Each vial contains 200 µg IgG1 in 1.0 mL PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

kynurenine (11F9) is recommended for detection of kynurenine modifications in proteins, reacting strongly with N-formylkynurenine-modified Nα-acetyl histidine by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); may cross-react with N-formylkynurenine-modified Nα-acetyl lysine, Nα-acetyl cysteine and Nα-acetyl arginine. Not cross reactive with other tryptophan oxidation products.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blocker A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2001 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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