

Cotinine, HRP conjugate

DAG1074

Lot. No. (See product label)

PRODUCT INFORMATION

Product overview	Cotinine, HRP conjugate
Antigen Description	Cotinine is an alkaloid found in tobacco and is also a metabolite of nicotine. The word "cotinine" is an anagram of "nicotine". Cotinine has an in vivo half-life of approximately 20 hours, and is typically detectable for several days (up to one week) after the use of tobacco. The level of cotinine in the blood is proportionate to the amount of exposure to tobacco smoke, so it is a valuable indicator of tobacco smoke exposure, including secondary (passive) smoke. People who smoke menthol cigarettes may retain cotinine in the blood for a longer period because menthol can compete with enzymatic metabolism of cotinine. Genetic encoding of liver enzymes may also play a role.) It is used as a biomarker for exposure to tobacco smoke and has also been sold as an antidepressant under the brand name Scotine.
Source	Alcohol/General/Other
Conjugate	HRP
Form	concentrate
Characteristic	Each conjugate comprises antigen covalently bound to horseradish peroxidase and is suitable as a tracer in immunoassay development
Applications	ELISA, Immunoassays, Development of Rapid tests and other immunoassay, antibody recognition assays

PACKAGING

Stability	This conjugate may be stored for up to 3 months at +2 - +8°C. For long term storage, aliquot and store at -20°C. Avoid repeated freeze/thaw cycles. Avoid using azide containing buffers.
Storage	Can be stored at 2-8°C for up to 3 months and at -20°C for longer term storage.

BACKGROUND

Introduction	Cotinine is an alkaloid found in tobacco and is also a metabolite of nicotine. The word "cotinine" is an anagram of "nicotine". Cotinine is used as a biomarker for exposure to tobacco smoke and has also been sold as an antidepressant under the brand name Scotine. Similarly to nicotine, cotinine binds to, activates, and desensitizes neuronal nicotinic acetylcholine receptors, though at much lower potency in comparison. It has demonstrated nootropic and antipsychotic-like effects in scientific research.
Keywords	Cotinine; (5S)-1-methyl-5-(3-pyridyl)pyrrolidin-2-one; [S]-1-METHYL-5-[3-PYRIDYL]-2-PYRROLIDINONE; 1-Methyl-5-(3-pyridinyl)-2-pyrrolidinone

REFERENCES

1. David J. Triggle (1996). Dictionary of Pharmacological Agents. Boca Raton: Chapman & Hall/CRC. ISBN 0-412-46630-9.
2. Dwoskin LP, Teng L, Buxton ST, Crooks PA (March 1999). "(S)-(-)-Cotinine, the major brain metabolite of nicotine, stimulates nicotinic receptors to evoke [3H]dopamine release from rat striatal slices in a calcium-dependent manner". The Journal of Pharmacology and Experimental Therapeutics 288 (3): 905–11. PMID 10027825.