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Product datasheet for AM05111PU-N

Theophylline Mouse Monoclonal Antibody [Clone ID: 057-14003]

Product data:

Product Type:	Primary Antibodies
Clone Name:	057-14003
Applications:	ELISA
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	This antibody recognizes Theophylline. **Cross-reactivity:** Aminophylline: 100% 8-Chloro-Theophylline: 2.8% Caffeine: 1.2% 1-Methylxanthine: 0.3% 3-Methylxanthine: 0.4% 1,7-Dimethylxanthine: 0.9% Theobromine: 0.6%
Formulation:	10mM Phosphate, pH 7.4 containing 150mM Sodium Chloride and 0.09% Sodium Azide as preservative. State: Purified State: Liquid (0.2µm filtered) purified Ig fraction (>90% pure by SDS-PAGE).
Concentration:	lot specific
Purification:	Protein A Chromatography.
Conjugation:	Unconjugated

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at < -40°C for longer.
If aliquoted for long term storage, fill volume should be equal to or greater than 50% of the nominal fill volume of the vial used.
Avoid repeated freezing and thawing.

Stability:

Shelf life: one year from despatch.

Background:

Theophylline is a colorless crystalline alkaloid, derived from tea leaves or made synthetically, used in medicine especially as a bronchial dilator.
Theophylline, the most common Methylxanthine, causes mild to moderate bronchodilation. Some recent evidence suggests that Theophyline may also have a mild anti-inflammatory component. Sustained release Theophylline's principle use is as adjuvant therapy and it is particularly useful in controlling nocturnal symptoms. Theophylline inhibits the TGF-beta regulated conversion of pulmonary fibroblasts into myofibroblasts via cyclic adenosine monophosphate (cAMP)-PKA pathway, and it suppresses COL1 mRNA which codes for the protein collagen. Theophylline also directly activates histone deacetylase (HDAC), an enzyme that mediates inflammatory responses, and it decreases the levels of interleukin-4 (IL-4) and cyclic guanosine monophosphate (cGMP).