

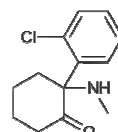
Product Specification Sheet

**Anti-Ketamine Antibodies and controls**

<input type="checkbox"/> <b>Cat. KTM11-M</b>	Monoclonal anti-Ketamine, clone 2, aff pure	<b>SIZE:</b> 100 ug
<input type="checkbox"/> <b>Cat. KTM15-N-1</b>	Ketamine-BSA conjugate for ELISA/Western	<b>SIZE:</b> 0.5 mg

Ketamine is a drug used in human and veterinary medicine. Ketamine is primarily used for the induction and maintenance of general anesthesia, usually in combination with a sedative. Other uses include sedation in intensive care, analgesia (particularly in emergency medicine), and treatment of bronchospasm. Ketamine has a wide range of effects in humans, including analgesia, anesthesia, hallucinations, elevated blood pressure, and bronchodilation. It has been shown to be effective in treating depression in patients with bipolar disorder who have not responded to anti-depressants. In persons with major depressive disorder, it produces a rapid antidepressant effect, acting within two hours as opposed to the several weeks taken by typical antidepressants to work. It is also a popular anesthetic in veterinary medicine. Its hydrochloride salt is sold as Ketanest, Ketaset, and Ketalar. Pharmacologically, ketamine is classified as an NMDA receptor antagonist. At high, fully anesthetic level doses, ketamine has also been found to bind to opioid  $\mu$  receptors type 2 in cultured human neuroblastoma cells – however, without agonist activity[6] – and to sigma receptors in rats. Also, ketamine interacts with muscarinic receptors, descending monoaminergic pain pathways and voltage-gated calcium channels. Like other drugs of this class such as tiletamine and phencyclidine (PCP), it induces a state referred to as "dissociative anesthesia" and is used as a recreational drug. Ketamine is a chiral compound. Most pharmaceutical preparations of ketamine are racemic; however, some brands reportedly have (mostly undocumented) differences in enantiomeric proportions. The more active enantiomer, (S)-ketamine, is also available for medical use under the brand name Ketanest S.

As positive control for ELISA as coating antigen. It is supplied in PBS, pH 7.4, 0.05% azide in liquid or lyophilized in the same buffer. Store at -20°C and store liquid in aliquots at -20°C or below. Stable for 1-yr.



Ketamine ((RS)-2-(2-Chlorophenyl)-2-(methylamino)cyclohexanone (mol wt 237.725))

**Form & Storage of Antibodies/Peptide Control**

**pure IgG**

- 1 mg/ml or specified on the vial
- solution  lyophilized powder

Supplied in **Buffer:** PBS+0.02% azide  
**Reconstitute powder** in PBS at a desired concn

**Storage**

**Short-term:** unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..

**Long-term:** at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder

**Recommended Usage**

**ELISA** (1:10K-1:100K; using 50-100 ng control peptide/well).

**Specificity & Cross-reactivity**

Antibodies are specific for ketamine. Ketamine-BSA conjugate for use as positive control and for ELISA.

**General References:** Hirota K (1999) Journal of Anesthesia 13 (2): 107-9; Narita M (2001) Addiction Biology 6 (4): 373-376; Lynch ME (2005) The Journal of Pain 6 (10): 644-9; Elia N (2005) Pain 113 (1-2): 61-70.

\*This product is for in vitro research use only.

Related material available from ADI

**Source of Antigen and Antibodies**

<b>Antigen</b>	Ketamine-BTG (bovine thyroglobulin conjugate)
<b>Ab Host/type</b>	Mouse, monoclonal (cat # KTM11-M) isotype IgG1
<b>Ab Format</b>	<b>Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)</b>
<b>-ve control</b>	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Isotype Controls**

<b>Catalog#</b>	<b>ProdDescription</b>
20102-101	Mouse IgG1 isotype control, purified
20102-101-1	Mouse IgG1 isotype control, purified
20102-101-APC	Mouse IgG1-APC conjugate (isotype control)
20102-101-B	Mouse IgG1-Biotin conjugate (isotype control)
20102-101-F	Mouse IgG1-FITC conjugate (isotype control)
20102-101-FP	Mouse IgG1-FITC-PE conjugate (isotype control)
20102-101-HP	Mouse IgG1-HRP conjugate (isotype control)
20102-101-PC5	Mouse IgG1-PE-Cy5 conjugate (isotype control)
20102-101-PE	Mouse IgG1-PE conjugate (isotype control)

**Cat. KTM15-N-1** (Ketamine-BSA conjugate)

KTM11-M

120824A

Ketamine was also conjugated to BSA (albumin) to be used

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