

## Anti-Morphine [12D4] Standard Size Ab00521-1.7

This antibody is in our proprietary AbFab2™ recombinant F(ab2) format - based on Mouse IgG1 sequence with a short dimerization domain to improve stability and a his tag.

This reformatted mouse antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse F(ab)2, AbFab2™ His-Tagged, Lambda

**Clone Number:** 12D4

**Alternative Name(s) of Target:** Morphinum; (5alpha,6alpha)-17-Methyl-7,8-didehydro-4,5-epoxymorphinan-3,6-diol

**UniProt Accession Number of Target Protein:**

**Published Application(s):** WB, ELISA

**Published Species Reactivity:** Species independent

**Immunogen:** Morphine-6-hemisuccinate conjugated with BSA.

**Specificity:** The antibody binds to morphine with an affinity (Kd) of 46 nM.

**Application Notes:** The antibody binds specifically to morphine, an alkaloid opiate drug derived from the opium poppy administered for the management of narcotic pain. Morphine exerts its effects by binding to µ opiate receptors in the central nervous system and gastrointestinal tract, leading to analgesia and sedation, thereby increasing the patient's tolerance to pain. The monoclonal antibody 12D4 recognises the N-methyl to N-allyl substitution in the conversion of morphine to nalorphine.

**Antibody First Published in:** Glasel JA, Bradbury WM, Venn RF. Properties of murine anti-morphine antibodies. Mol Immunol. 1983 Dec;20(12):1419-22. [PMID:6361525](#)

**Note on publication:** Describes the isolation of four high affinity monoclonal antibodies against morphine.

## Product Form

**Size:** 200 µg Purified antibody.

**Purification:** Purified by Immobilized Metal Affinity Chromatography

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:**

1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.