ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

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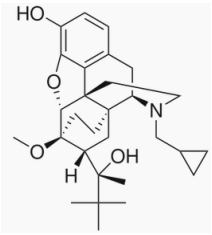
Human Buprenorphine (BUNO) antibodies and Conjugates

☐ Cat. # BUNO11-M	**Mouse Monoclonal** Anti-Human BUNO, clone 3	**SIZE**: 1 mg
☐ Cat. # BUNP15-N-1	**Buprenorphine-BSA** conjugate for ELISA/Western	**SIZE**: 0.5 mg



Buprenorphine is an opioid, a semi-synthetic derivative of thebaine (1). It is a mixed agonist–antagonist opioid receptor modulator that is used to treat opioid addiction in higher dosages, to control moderate acute pain in non-opioid-tolerant individuals in lower dosages and to control moderate chronic pain in even smaller doses. It is available in a variety of formulations: Subutex, Suboxone, Zubsolv (buprenorphine HCl and/or naloxone HCl; typically used for opioid addiction), Temgesic (sublingual tablets for moderate to severe pain), Buprenex (solutions for injection often used for acute pain in primary-care settings), Norspan and Butrans (transdermal preparations used for chronic pain).

Its primary uses in medicine are in the treatment of those addicted to opioids, such as heroin and oxycodone, but it may also be used to treat pain, most often in transdermal patch form.

Buprenorphine is known to possess the following pharmacological activity:
μ-Opioid receptor (MOR): Ki = 1.5 nM; IA = 28.7%[contradiction]
κ-Opioid receptor (KOR): Ki = 2.5 nM; IA = 0%
δ-Opioid receptor (DOR): Ki = 6.1 nM; IA = 0%
Nociceptin receptor (ORL-1): Ki = 77.4 nM; IA = 15.5%

In simplified terms, buprenorphine can essentially be thought of as a non-selective, mixed agonist–antagonist opioid receptor modulator, acting as a partial agonist of the MOR, an antagonist of the KOR, an antagonist of the DOR, and a relatively low-affinity, weak partial agonist of the ORL-1. Buprenorphine is also known to bind to and antagonize the putative ε-opioid receptor

Source of Antigen and Antibodies

Antigen	Highly purified human BUNO protein (#BUNO15-N)
Ab Host/type	Mouse, monoclonal IgG (#BUNO11-M) supplied purified IgG
2-ab	**Goat Anti-mouse IgG-HRP conjugate Cat # 40120 (AP, biotin, FITC conjugates also available)**
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
☐ 100 ug/100ul ☐ solution ☐ lyophilized powder
Supplied in **Buffer**: PBS+0.05% azide
Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

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

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder

BUNP15-N-1, BSA-Conjugate

Buprenorphine was conjugated to bovine serum albumin (BSA) using proprietary method. It is provided in PBS, pH 7.4 and 0.02% azide (or see lot sp. conc on the vial). Store frozen and avoid repeated freeze and thaw. It is a positive control for the Buprenorphine antibodies in ELISA or other appropriate techniques. Recommended coating concentrations are 1-10 ug/ml.

References: Ruoslahti E et al (1974) Transplant Rev. 20, 30-60; Silver HKB et al (1973) PNAS 70, 526-530; Brauenstein GD et al (1973) Cancer 31, 1065-1068; McIntire KR et al (1975) Cancer Res. 35, 991-996; Silver HKB et al (1974) Cancer Res. 34, 244-247; Purves LR et al (1973) Africa Gann Monograph 14, 51-66; Bosl GJ et al (1981) Cancer 47, 328

*This product is for In vitro research use only.

References: http://en.wikipedia.org/wiki/Buprenorphine; Weinberg DS (1988) Clin. Pharmacol. Ther. 44, 335-342; Campbell ND (2012) Ann. NY Acad. Sci. 1248, 124-139;

Related material available from ADI

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