

PRODUCT DATA SHEET

Product Data Sheet:	Sheep Monoclonal Antibodies (SMAs) to Buprenorphine (BUP)
SMA Covered	BUP.1C5, BUP.3G11 & BUP.4B11
Introduction and Production Description	The measurement of buprenorphine is of use in monitoring the controlled administration and the abuse of this drug. The levels in samples such as saliva can be very low and high affinity antibodies are of use in facilitating immunoassays that can measure low levels.

Manufacturing Specification (both SMAs)

Parameter	Specification	Test Method
Buffer and pH	PBS +0.1% Sodium azide at 7.2-7.4	pH Meter
Antibody Concentration	1-3 mg/mL	A280 (E _c = 1.4)
Purity and Aggregates	Single Main Peak ≥90%	Size Exclusion HPLC
Immunological Activity	±20% biological activity of frozen reference standard	In house ELISA

ELISA DATA: Conjugate Reactivities and Affinities

	BUP.1C5	BUP.3G11	BUP.4B11
BUP-3-O-BSA	High	High	High

ELISA DATA: Free BUP and Metabolite Affinities

	BUP.1C5	BUP.3G11	BUP.4B11
BUP affinity (IC₅₀%)	50 ng/mL	30 ng/mL	50 ng/mL
Nor-BUP (IC₅₀%)	50 ng/mL	30 ng/mL	300 ng/mL
BUP-gluc' de (IC₅₀%)	50 ng/mL	30 ng/mL	>10 µg/mL
n-BUP-gluc (IC₅₀%)	50 ng/mL	30 ng/mL	>10 µg/mL