Phone: 888-558-5227

651-644-8424

888-558-7329 Fax: Email: getinfo@lktlabs.com

Web: lktlabs.com

## **Product Information**

Product ID C4517

CAS No. 21898-19-1

Chemical Name 4-Amino-alpha-((tert-butylamino)methyl)-3,5-dichlorobenzyl alcohol

hydrochloride

Synonym Clenbuterol hydrochloride, Planipart hydrochloride, Spiropent,

Ventipulmin

Formula C<sub>12</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>O • HCl

Formula Wt. 313.65

Melting Point 174-175.5°C

Purity ≥98% Solubility

CI HCI  $H_2N$ OH

Bulk quanitites available upon request

Product ID Size C4517 25 mg C4517 100 mg C4517 250 mg

Store Temp Ambient Ship Temp Ambient

**Description** Clenbuterol is an agonist at 82-adrenergic receptors. Clenbuterol exhibits neuroprotective and anti-inflammatory activities; it

is also known for its ability to decrease adipose cell size and increase muscle fiber size. In vitro, clenbuterol upregulates histone demethylase JHDM2a through modulation of PKA/cAMP signaling. In vivo, this compound increases IGF signaling to induce hypertrophy in skeletal muscle. Additionally, clenbuterol inhibits kainic acid-induced apoptosis of hippocampal neurons, decreasing expression of inflammatory cytokines and increasing expression of BDNF and NGF in other animal models.

References Li Y, He J, Sui S, et al. Clenbuterol upregulates histone demethylase JHDM2a via the B2-adrenoceptor/cAMP/PKA/p-CREB signaling pathway. Cell Signal. 2012 Dec;24(12):2297-306. PMID: 22820505.

> Abo T, Iida RH, Kaneko S, et al. IGF and myostatin pathways are respectively induced during the earlier and the later stages of skeletal muscle hypertrophy induced by clenbuterol, a B2-adrenergic agonist. Cell Biochem Funct. 2012 Dec;30(8):671-6. PMID: 22696074.

> Gleeson LC, Ryan KJ, Griffin EW, et al. The B2-adrenoceptor agonist clenbuterol elicits neuroprotective, anti-inflammatory and neurotrophic actions in the kainic acid model of excitotoxicity. Brain Behav Immun. 2010 Nov;24(8):1354-61. PMID: 20599496.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.