ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

Cat # RP-1492 Human Protirelin (Thyrotropin Releasing Hormone) **Size**: 100 mg

Thyrotropin-releasing hormone (TRH), also called thyrotropin-releasing factor (TRF), thyroliberin or protirelin, is a tripeptide hormonethat stimulates the release of thyroid-stimulating hormoneand prolactin by the anterior pituitary. TRH is produced by the hypothalamus, near the paraventricular nucleus. It travels across the median eminenceto the pituitary via the hypophyseal portal system. It is released from cells called thyrotropes. In addition to the brain, TRH can also be detected in other areas of the body including the gastrointestinal system and pancreatic islets. Protirelin stimulates the secretion of pituitary thyroid stimulating hormone from the anterior pituitary and has been shown that protirelin increases secretion of prolactin. Protirelin is identified as 5-oxo-L-prolyl-L-histidyl-L-proline amide. It is a synthetic tripeptide that is believed to be structurally identical to the naturally-occurring thyrotropin-releasing hormone produced by the hypothalamus.

**Source:** Thyrotropin Releasing Hormone Human $C_{16}H_{22}N_6O_4$ has a molecular mass of 362.39 Dalton. The TRH is purified by proprietary chromatographic techniques. The TRH was lyophilized with no additives.

**Application and Suggested Dilution:** It is recommended to reconstitute the lyophilized Thyroliberin in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize concentration and conditions for each assay.

**Storage and Stability:** Lyophilized Protirelin although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution TRH should be stored at 4℃ between 2-7 days and for future use below -18℃. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).**Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4ºC for ~1 week or aliquots in suitable size and store at -20ºC for long term storage.

**Usage**: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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