



**Catalog Number:** HC-104A

**Quantity:** 100ml

**Description:** Endotoxin-free water for cytokine sample preparation in aqueous solution

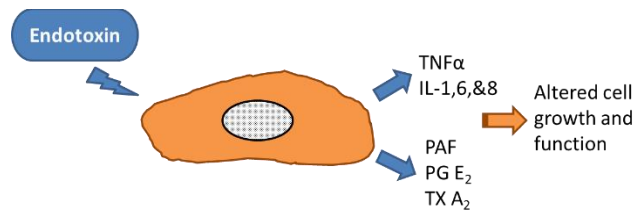
**Origin of manufacturing:** USA

**Endotoxin level:** <0.05EU/ml by Limulus amoebocyte lysate (LAL) gel clot assay. According to US Pharmacopeia (USP), the endotoxin limit of sterile water for *in vivo* use is below 0.25EU/ml by LAL assay<sup>1</sup>.

(EU/ml: A quantification of endotoxin levels relative to a specific quantity of reference endotoxin. 1EU/ml is approximately equal to 0.1ng/ml.)

**Product format:** The bottle contains 0.2µm filter sterilized endotoxin-free water.

### Endotoxin Effects on Cell Culture and Function



Endotoxin is a complex lipopolysaccharide (LPS) which is a major component of the outer membrane of most-gram negative bacteria. LPS consists of a very hydrophobic lipid group (lipid A) covalently bound to a long complex polysaccharide tail.

Endotoxin has shown to affect cell growth and function as well as being a source of significant variability<sup>2</sup>. This is especially true when using cells known to be sensitive to the low endotoxin levels that are commonly found in cell culture system.

**Shipping:** The product is shipped at ambient temperature. Upon receipt, store it at the temperature recommended below.

### Stability & Storage:

24 months from date of receipt, 2 to 25 °C under sterile conditions.

**Application:** Currently, most commercially prepared media are tested for endotoxin and certified to contain less than 0.1ng/ml of endotoxin (<1EU/ml). For laboratory prepared media, the endotoxin level will be determined primarily by the endotoxin level of the water used to dissolve the other components. Therefore endotoxin-free water is essential in preparing media and solutions,

### References:

1. *The United States Pharmacopeia XXIII*, U. S. Pharmacopeial Convention, Rockville, MD 1994.
2. Case Gould MJ. *Endotoxin in vertebrate cell Culture: Its measurement and significance*. In uses and standardization of vertebrate cell lines, (Tissue culture association, Gaithersburg, MD). 125-136. 1984.