



# Certificate of Analysis

## HEPES, FREE ACID

N-(2-Hydroxyethyl) Piperazine-N'(2-Ethanesulfonic Acid)

<u>Catalog #</u>	<u>Size</u>
IB01130	50gm
IB01131	250gm
IB01132	500gm
IB01133	1Kg

**Catalog Number:** IB01130, IB01131, IB01132, IB01133

**Lot Number:** 18A1002

**Molecular Formula:** C<sub>8</sub>H<sub>18</sub>N<sub>2</sub>O<sub>4</sub>S

**Molecular Weight:** 238.31

**Appearance:** Crystalline powder

**Color:** White

<u>Assay</u>	<u>Min</u>	<u>Max</u>	<u>Actual</u>
Assay (by titration)	≥99.0%		100.0
Absorbance (0.5M solution in H <sub>2</sub> O)			
260 nm		≤0.05	0.01
280 nm		≤0.05	0.01
pH (0.5M solution in H <sub>2</sub> O)	5.1	6.5	5.4
Water (by Karl Fischer)		≤0.25%	0.10
Heavy Metals (as Pb)		10 ppm	1 ppm
Iron (Fe)		5 ppm	4 ppm
Sulfates (SO <sub>4</sub> )		0.05%	<0.05 %
DNase Assay			NONE
RNase Assay			NONE
Protease Assay			NONE
Cell Culture Test (5.95g/L in H <sub>2</sub> O)			PASS

### Storage

Store at room temperature. Protect from moisture.

*This signature indicates that the above material has met all quality specifications and has been reviewed by a quality representative.*

Signature: K. Kutsch  
Date: 01/04/2018