Certificate of Analysis

Better Separations
Through Better Chemistry

Catecholamine Standard
1 mg/mL
(10 mL)

Product Number 45-0206
Certificate of Analysis

Lot Number CS030314

Expiration of Certification
September 03, 2014

Parameter	Specification	Results			Pass/Fail
% Difference (Catecholamine)		**NE**	**E**	**Da**	
10^{-6} Dilution Peak Area	± 5%	1	1	0	PASS
10^{-9} Dilution Peak Height	± 10%	8	1	-4	PASS
10^{-9} Dilution Retention Time	± 5%	0.5	0.3	0.4	PASS

NE = (-)-norepinephrine; E = (-)-epinephrine, Da = dopamine

Active Ingredients:
A solution containing 1mg/mL each of (-)-norepinephrine, (-)-epinephrine, and dopamine in 0.1N hydrochloric acid (HCl)

Product Specifications / Analysis:
An HPLC analysis using electrochemical response is performed on the newly formulated (Current) lot and compared to a previous (Approved) lot of Catecholamine Standard. An HPLC analysis with dual-channel electrochemical detection is performed using an HR-80 analytical column that has been equilibrated with an approved lot of Cat-A-Phase mobile phase. Samples are prepared by making five 10^{-6} dilutions from five different bottles from the Current lot formulation and one 10^{-9} dilution from one of the five bottles. Samples of the Approved lot are prepared from a single bottle making one 10^{-6} and one 10^{-9} dilution. Five injections of the 10^{-6} and one injection of the 10^{-9} are performed for the Current lot and one injection of the 10^{-6} and 10^{-9} for the Approved lot are injected. The average peak areas for the catecholamine standard analytes from the 10^{-6} injections are determined. The percent difference of the averages for the Approved and Current lots of Catecholamine Standard are calculated and must be within ±5%. The peak height and retention time for the 10^{-9} injections are calculated and must be within ±10% and ±5% respectively.

Storage:
Refrigerate immediately upon arrival, recommended temperature range is 2 to 8 °C.

Expiration:
This Thermo Scientific product is covered by a 3-month limited warranty. Tests have been completed to ensure that component concentration remains within the certified values throughout the product shelf life. The actual shelf life of individual lots will depend on the storage conditions, application requirements, etc. It is recommended to test any product that is past the specified shelf life date marked on the container to determine suitability for use in your application.

This product was manufactured in the USA by the Thermo Scientific Consumables Manufacturing Department in Sunnyvale California which took extreme care in the producing and packaging this product.

Safety Notice:
Material Safety Data Sheets (MSDS) can be found online at: www.thermoscientific.com/dionex

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Dionex products are designed, developed, and manufactured under an ISO 9001 Quality System.

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