

CREATINASE, CREATININASE & SARCOSINE OXIDASE

Product	Creatinase	Creatininase	Sarcosine Oxidase
EC Number	3.5.3.3	3.5.2.10	1.5.3.1
Alternative Names	Creatine amidinohydrolase	Creatinine amidohydrolase	Sarcosine: oxygen 2-oxidoreductase (demethylating)

Assay Principle	$\text{Creatinine} + \text{H}_2\text{O} \xrightarrow{\text{Creatininase}} \text{Creatine}$ $\text{Creatine} + \text{H}_2\text{O} \xrightarrow{\text{Creatinase}} \text{Sarcosine} + \text{Urea}$ $\text{Sarcosine} + \text{H}_2\text{O} + \text{O}_2 \xrightarrow{\text{Sarcosine oxidase}} \text{Glycine} + \text{Formaldehyde} + \text{H}_2\text{O}_2$ $2 \text{H}_2\text{O}_2 + 4\text{-Aminoantipyrine} + \text{Phenol} \xrightarrow{\text{Peroxidase}} \text{Quinoneimine dye} + 4 \text{H}_2\text{O}$	
Unit Definition	CR1F	That amount of enzyme which produces one micromole of urea per minute at 37°C and pH 7.7.
	CNN1	That amount of enzyme which produces one micromole of creatine per minute at 37°C and pH 6.8.
	SO2F	That amount of enzyme which produces one micromole of formaldehyde per minute at 37°C and pH 7.7.

How can Creatinase, Creatininase & Sarcosine Oxidase be used?

Creatinine is a waste product produced by muscle metabolism which is normally filtered out of the blood by the kidneys. Abnormal Creatinine levels in blood could indicate a decline in renal function. Creatinase, Creatininase and Sarcosine Oxidase when coupled with Peroxidase are used in Biosensor and Clinical Chemistry applications for the determination of Creatinine and Creatine.



Why BBI?

- + Proven performance – Our products have been used in both biosensor and clinical chemistry applications

Order your evaluation sample today

Product Analysis

Code	Batch	Activity	Associated Activity
CR1F	47	16 U/mg material	Catalase: <0.5%
CNN1	51	631 U/mg material	Catalase: <1.0%
S02F	59	31 U/mg material	Catalase: <0.5% Glucose Oxidase: <0.00001%

Storage	Store desiccated at -15°C or below.
Stability	Stable for 6 months when stored in accordance with storage conditions.

ORDERING DETAILS - USE THE FOLLOWING CODES WHEN ORDERING

Product	Code	Description	Source	Applications
Creatinase	CR1F	>9 U/mg material	Recombinant Escherichia coli	Biosensor/Clinical Chemistry
Creatininase	CNN1	>500 U/mg material	Recombinant Escherichia coli	Biosensor/Clinical Chemistry
Sarcosine Oxidase	S02F	>20 U/mg material	Recombinant Escherichia coli	Biosensor/Clinical Chemistry

Related Products

Product	Code	Description
Glucose Oxidase	G03A	~360 U/mg protein
	G03B2	~360 U/mg protein
	G03B3	~360 U/mg protein
Cholesterol Esterase	CE2	>35 U/mg material
	CE4F	>100 U/mg material
Cholesterol Oxidase	C05F	>12 U/mg material
Uricase	U5	>4 U/mg material
Peroxidase	161451BBI	> 250 Pyrogallol U/mg
	161453BBI	> 100 Pyrogallol U/mg material
	161457BBI	> 200 Pyrogallol U/mg material
	HRP3C	>150 U/mg material
	HRP4	>250 U/mg material
	HRP4B	>250 U/mg material
	HRP4C	>250 U/mg material

Order a sample today sales@bbisolutions.com
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