



# SZABO SCANDIC

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## Produktinformation



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- Trockeneiszuschlag
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- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# PRODUCT INFORMATION



## Carbamylated Fetal Calf Serum

Item No. 21097

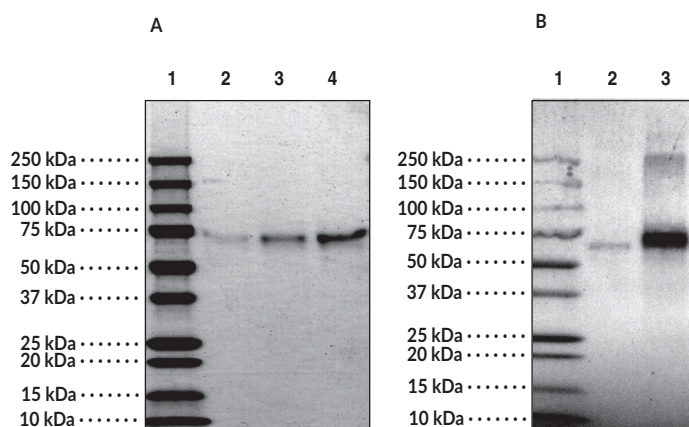
### Overview and Properties

**Synonyms:** Ca-FCS, Carbamylated FCS  
**Source:** Fetal calf serum modified with potassium cyanate

*Batch specific information can be found on the Certificate of Analysis or by contacting Technical Support*

**Storage:** -20°C (as supplied); avoid freeze/thaw cycles by aliquoting the protein after resuspension  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly  
**Purity:** *batch specific* (≥95% estimated by SDS-PAGE)  
**Supplied in:** *batch specific*

### Images



**Panel A:** Analysis of carbamylated fetal calf serum (FCS) stained with coomassie on 12% SDS-PAGE.

**Lane 1:** MW Markers

**Lane 2:** Carbamylated FCS (1 µg)

**Lane 3:** Carbamylated FCS (2 µg)

**Lane 4:** Carbamylated FCS (4 µg)

**Panel B:** Western blot analysis of FCS carbamylation.

**Lane 1:** MW Markers

**Lane 2:** FCS

**Lane 3:** Carbamylated FCS

FCS (lane 2) and carbamylated FCS (lane 3) were reacted with a biotin labeled probe specific for carbamylated lysines and run on 12% SDS-PAGE alongside MW markers (lane 1). The proteins were blotted to PVDF and detected using streptavidin-HRP.

**Representative gel image shown; actual purity may vary between each batch but protein will be ≥95% pure.**

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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**CAYMAN CHEMICAL**  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM

# PRODUCT INFORMATION



## Description

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Citrullination and carbamylation are two post-translational modifications that result in the generation of citrulline and homocitrulline, two highly related, non-standard amino acids. While citrullination of arginine is catalyzed by peptidylarginine deiminases (PADs), homocitrulline results from the non-enzymic reaction of cyanate with lysine. Carbamylation occurs at low levels in healthy individuals, but at higher levels in several clinical conditions such as atherosclerosis, kidney disease, and inflammation.<sup>1-3</sup> Carbamylation can lead to changes in protein function, cellular function, and generation of an immune response to homocitrulline containing proteins.<sup>1-3</sup> This product contains carbamylated fetal calf serum.

## References

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1. Shi, J., van Veelen, P.A., Mahler, M., *et al.* Carbamylation and antibodies against carbamylated proteins in autoimmunity and other pathologies. *Autoimmun. Rev.* **13(3)**, 225-230 (2014).
2. Puijn, G.J.M. Citrullination and carbamylation in the pathophysiology of rheumatoid arthritis. *Front. Immunol.* **6**, 192 (2015).
2. Mastrangelo, A., Colasanti, T., Barbati, C., *et al.* The role of posttranslational protein modifications in rheumatological diseases: Focus on rheumatoid arthritis. *J. Immunol. Res.* **2015** 712490 (2015).

CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM