CBL-BSA

CATALOG NUMBER: STA-379 **STORAGE:** -20ºC

QUANTITY AND CONCENTRATION: 100 µL of 0.1 mg/mL CBL-BSA in 1X PBS containing 0.05 mM EDTA, 0.001% NaN3, 5% Glycerol

SHELF LIFE: 1 year from date of receipt under proper storage conditions; aliquot to avoid multiple freeze thaw cycles

Background

Carbamylation is a post-translational modification which occurs throughout the lifespan of proteins *in vivo*. Carbamylation results from the binding of isocyanic acid, spontaneously derived from high concentrations of urea and leading to the formation of carbamyl-lysine (CBL) (Figure 1). The carbamylation of proteins is usually associated with a partial or complete loss of protein function. It is known that elevated urea directly induces the formation of potentially atherogenic carbamylated LDL (cLDL). High blood concentrations of urea leading to the carbamylation process were detected in uremic patients and patients with end-stage renal disease.

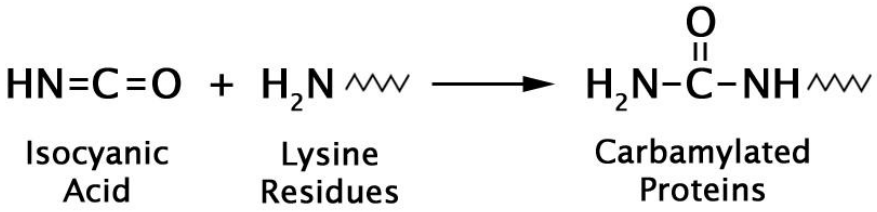

Figure 1: Formation of Carbamyl-Lysine (CBL) During Carbamylation of Proteins

Methods

Dilute the CBL-BSA with SDS-PAGE reducing sample buffer to 1.0-10 µg/mL and boil for 5 minutes. Load 10 µL per lane for western blot analysis of CBL protein adducts.

References

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4. Balion, C.M., et al. (1998). *Kidney Int.* **53**:488-495.
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6. Jaisson, S., et al. (2007). *FEBS Lett.* **581**:1509-1513.

7. Garnotel, R., et al. (2004). *FEBS Lett.* **563**:13-16.

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