



## Certificate of Stability

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### LZ-ACASE-KIT

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#### **Stability Question**

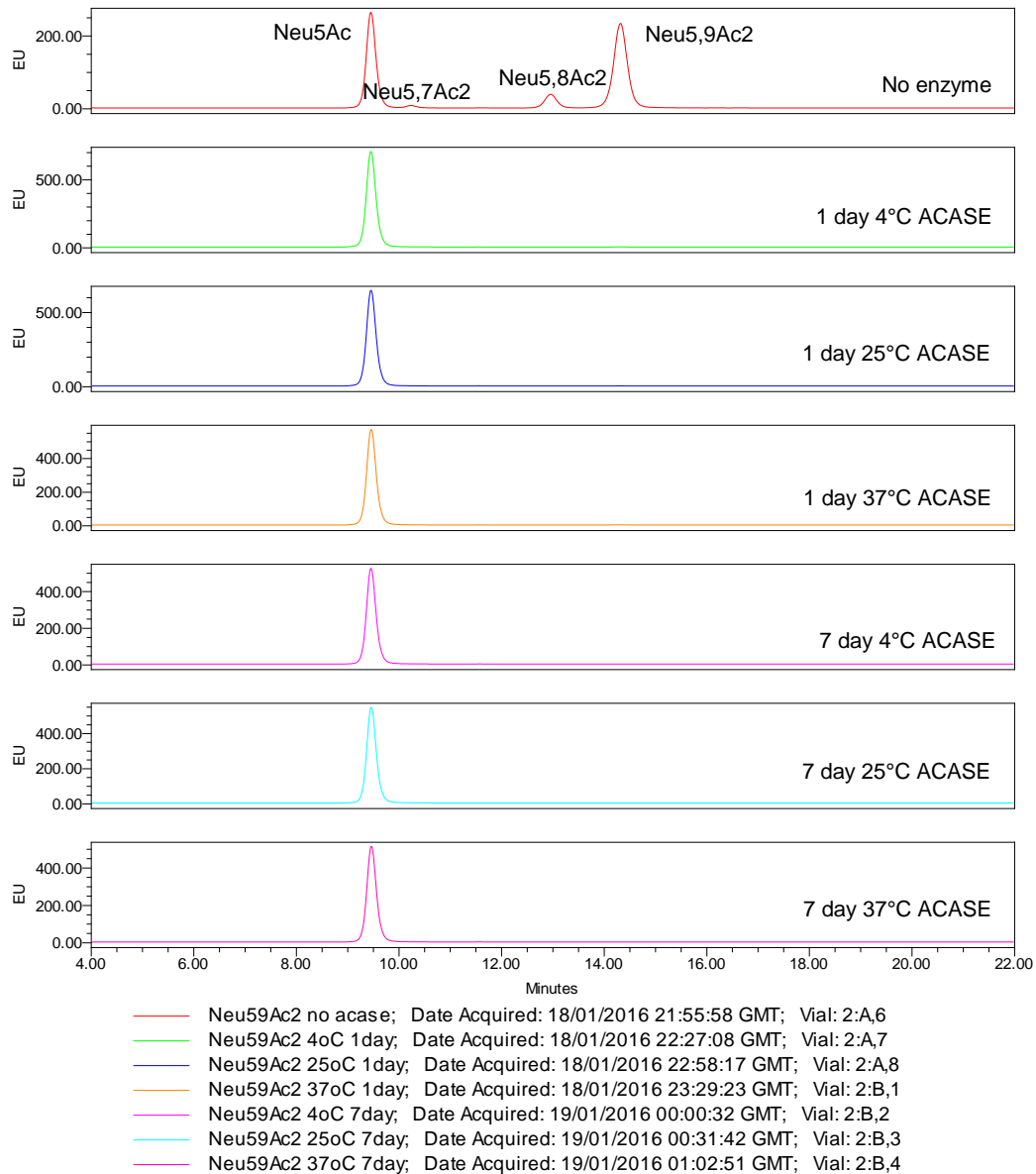
What is the enzyme activity of Acetyl Esterase (ACASE) when exposed to higher ambient temperatures for a prolonged period of time?

#### **Stability Trial**

Vials of Acetyl Esterase were subjected to 37°C, room temperature or 4°C for up to 7 days. Each of these enzymes was then used to digest Neu5,9Ac2 to ascertain enzyme functionality by incubating the enzyme with Neu5,9Ac2 for 6 hours at 37°C. The enzyme-digested sialic acid was fluorophore labelled and detected using a HPLC fitted with a fluorometer. The removal of Neu5,9Ac2, Neu5,8Ac2 and Neu5,7Ac2 peaks indicates an active enzyme.

#### **Stability Outcome.**

Acetyl esterase remains functional after 7 days incubation at either 37°C, room temperature or at 4°C (Figure1).



**Figure 1:** Comparison of activity of Acetyl Esterase subjected to three storage conditions (37°C, room temperature and 4°C) for 1 day and 7 days. Acetyl Esterase-digested Neu5,9Ac2 samples were DMB labelled before running on a Waters 2795 HPLC equipped with a LudgerSep R1 column. The disappearance of Neu5,9Ac2, Neu5,8Ac2 and Neu5,7Ac2 indicates an active enzyme.