

# Skin analysis by MS imaging using blotting method

A blotting method using DIUTHAME enables MSI (mass spectrometry imaging) without thin-sectioning a sample, which is DIUTHAME's biggest advantage. Previously, samples difficult to slice into thin sections required collecting an analysis sample using skin tape strips, but this method caused problems such as noise and conductivity from the tape. The DIUTHAME blotting method solves all these issues easily for any sample that is difficult or impossible to slice into thin sections. This paper reports the surface analysis of human skin using the DIUTHAME blotting method.

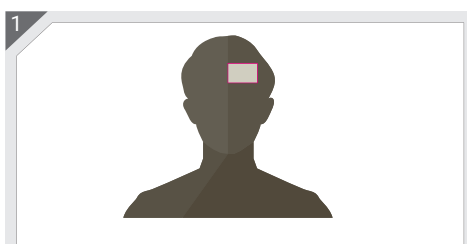


▲ A13331-18-2B (For blotting)

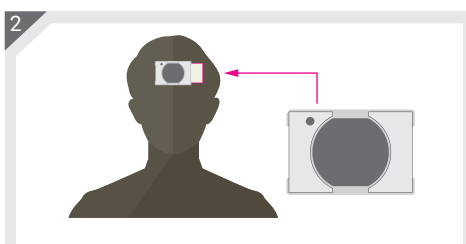
## Measurement conditions

Measurement mode: Laser pitch 10 ~ 80  $\mu\text{m}$ , positive ion, reflectron mode  
Sample: Forehead

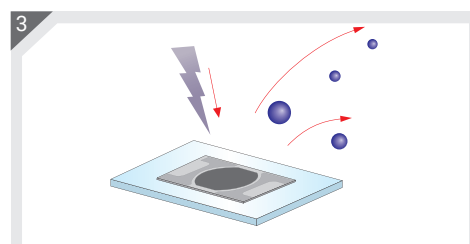
## Method



1 Clean half the forehead with ethanol.



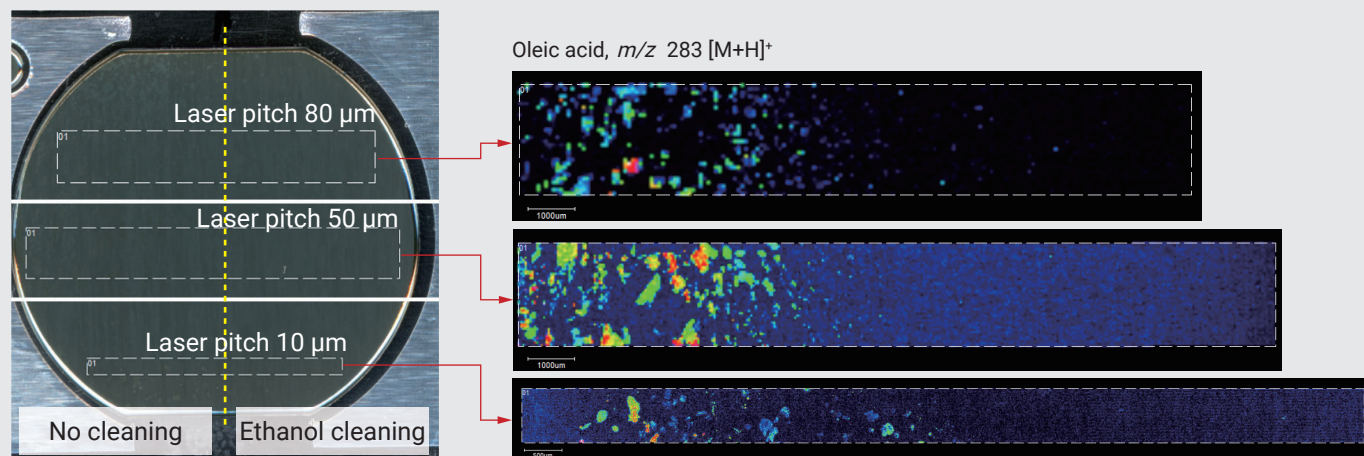
2 Place DIUTHAME on the forehead and allow it to absorb the skin's molecular components through capillary action.



3 Set the DIUTHAME on the measurement plate and start MS imaging.

## Results

The MSI results are shown below. The distribution of fatty acids in sebum was obtained with high spatial resolution just by placing DIUTHAME on the skin. These results suggest that the DIUTHAME blotting method is effective in surface analysis, such as that of human skin for example.



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