

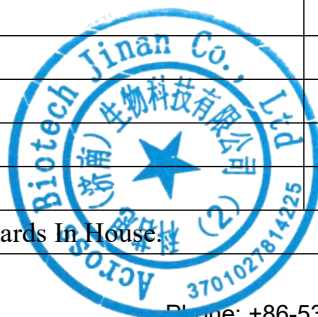


**ACROSS BIOTECH**  
MAKE A DIFFERENCE

## Certificate of Analysis

|                      |              |                  |            |
|----------------------|--------------|------------------|------------|
| <b>Product name:</b> | Ectoin       | <b>CAS No:</b>   | 96702-03-3 |
| <b>Package:</b>      | 500g/bag     | <b>Quantity:</b> | 100kg      |
| <b>MFG Date:</b>     | 2025/03/04   | <b>EXP Date:</b> | 2028/03/03 |
| <b>Batch No.:</b>    | EC2025030309 | <b>Standard</b>  | In House   |

| Items                                     | Standards   | Results          |
|---|---|------------------|
| Appearance                                | White or white-like crystal or powder   | Conform          |
| Assay(HPLC)                               | $\geq 98.5\%$   | 99.3%            |
| Spectrographical identification           | The infrared absorption spectrum should be consistent with the reference spectrum | Conform          |
| pH  | 6.0~6.8   | 5.9              |
| Specific Rotation                         | $+139^{\circ}\sim+145^{\circ}$  | $+140.4^{\circ}$ |
| Color                                     | $\leq 25$ Hazen   | $<25$ Hazen      |
| Light transmittance of solution           | The transmittance at a wavelength of 430nm should not be lower than 98.0%.        | 100%             |
| Light transmittance of 10% water solution | The transmittance at a wavelength of 430nm should not be lower than 98.0%.        | 99.6%            |
| Conductivity of 5% water solution         | $\leq 5.0$ uS/cm  | 2.65 uS/cm       |
| Solvent residue (methanol)                | $\leq 10$ ppm   | $<10$ ppm        |
| Solvent residues (ethanol)                | $\leq 10$ ppm   | $<10$ ppm        |
| Chloride                                  | $\leq 0.03\%$   | $<0.03\%$        |
| Loss on drying                            | $\leq 0.5\%$  | 0.14%            |
| Residue on ignition                       | $\leq 0.1\%$  | 0.04%            |
| Total plate count                         | $\leq 100$ CFU/g  | $<10$ CFU/g      |
| Yeast & Mold Count                        | $\leq 50$ CFU/g   | $<10$ CFU/g      |
| Staphylococcus aureus                     | No detection  | Negative         |
| Pseudomonas aeruginosa                    | No detection  | Negative         |
| Thermotolerant coliforms                  | No detection  | Negative         |
| As  | $\leq 2$ ppm  | $<2$ ppm         |
| Pb  | $\leq 10$ ppm   | $<10$ ppm        |
| Sb  | $\leq 1$ ppm  | $<1$ ppm         |
| Cd  | $\leq 5$ ppm  | $<5$ ppm         |
| Ni  | $\leq 10$ ppm   | $<10$ ppm        |
| Cr  | $\leq 5$ ppm  | $<5$ ppm         |
| Hg  | $\leq 1$ ppm  | $<1$ ppm         |
| Conclusion:                               | Conform to the standards In House.  |                  |



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