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## 11-Amino-1-undecanethiol, hydrochloride

Item # Unit Size

A423-10 10 mg

A423-12 100 mg

**Chemical Description:** 11-Amino-1-undecanethiol, hydrochloride

**CAS:** 143339-58-6

**Appearance:** White or slightly reddish white crystalline powder

**Purity:** ≥90.0% (HPLC, derivatization)

**MW:** 239.85, C<sub>11</sub>H<sub>26</sub>ClNS

**Application:** SAM preparation, amine group coating

**Storage Condition:** -20°C, protect from light and metal

**Shipping Condition:** ambient temperature

### Structural Formula



### Product Description

Aminoalkanethiols are utilized for the modification of a gold surface to introduce amino groups on the surface. Dojindo's newly developed 16-Amino-1-hexadecanethiol has a 16-carbon chain, which is the longest alkanethiol available in the market. It is expected that 16-Amino-1-hexadecanethiol will form the most stable SAM on a gold surface among the aminoalkanethiol compounds because of the greater Van-der-Waals force between alkane groups. Five different aminoalkanethiols including Amino-EG6-undecanethiol, hydrochloride are available for gold surface modification. Amino-EG<sub>6</sub>-undecanethiol is used for hydrophilic surface preparation. The amino group is usually modified using aminereactive materials, such as proteins or biomaterials, to functionalize the gold surface. Several researchers have reported SAMs of short alkyl chain aminoalkanethiols, and there are an increasing number of reports of long alkyl chain compounds. Takahara and others formed a monolayer of 11-Amino-1-undecanethiol on a gold electrode and studied the effect of the terminal groups on the redox responses of ferrocene derivatives using the voltammetric method. They also reported the relationship between the alkyl chain length of aminoalkanethiols and the redox behavior of 2,3-dichloro-1,4-naphthoquinone attached to the terminal amino group. Tanahashi and coworkers modified a gold surface with SAMs of several kinds of functionalized alkanethiols. They reported the effect of their terminal functional groups on apatite formation in a simulated body fluid using X-ray photoelectron spectroscopic (XPS) measurement and quartz crystal microbalance (QCM) method.



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