Sign:

E(kpri-sender, H (m)) – header1 //to sign

m – content

Sign and encrypt:

E (kpri-sender, H(m)) – header1 //to sign

E (kpub-receiver, KAES) – header2 //share secret key

E (kpub-sender, KAES) – header3 //keep secret key

Es (kAES, m) - content