

# Nanogold® Labeling Reagents

Make your own targeted gold probes and imaging agents

Your choice of 1.4 nm Nanogold® or 0.8 nm Undecagold nanoparticles

## Label almost any molecule!

Ready to bind to your target:

Available naked, charged  
or with common reactive groups

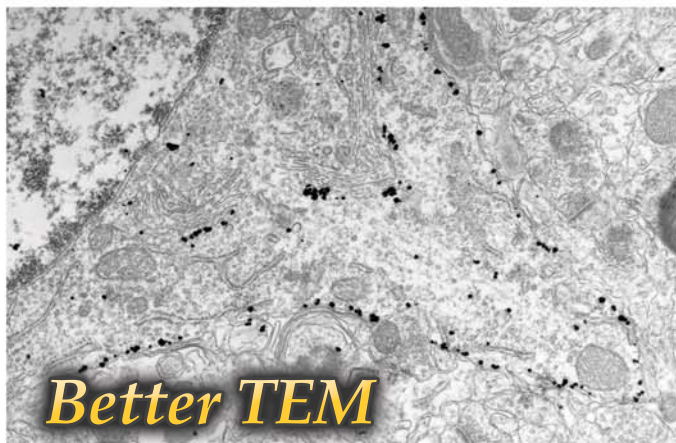
## Cross-links COVALENTLY to your target

at specific sites under mild buffer conditions

*Nanogold® brings the versatility  
of fluorescent conjugation  
to gold labeling!*

## Make your own probes for EM or LM!

- Extremely uniform 1.4 nm or 0.8 nm gold nanoparticles
- Higher density labeling than with larger gold probes
- Close to stoichiometric labeling
- Reacts under mild, neutral conditions
- Conjugates are easily isolated by gel filtration
- Conjugates are stable at wide range of pH & ionic strengths  
After storage for 1 year, reactivity is unchanged
- Unparalleled penetration of conjugates:  
**Penetrates up to 40 µm into tissue sections and cells**

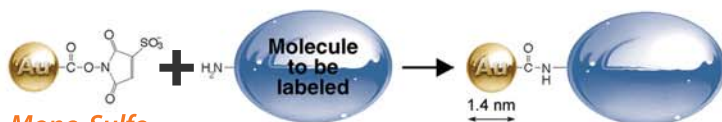


Nanogold®-Fab' labeling of K<sup>+</sup> channel Kv2.1 subunit in rat brain, X15,000  
(courtesy of J.-H. Tao-Cheng, NIH)

Monomaleimido  
Nanogold®



Mono-Sulfo-  
NHS-Nanogold®



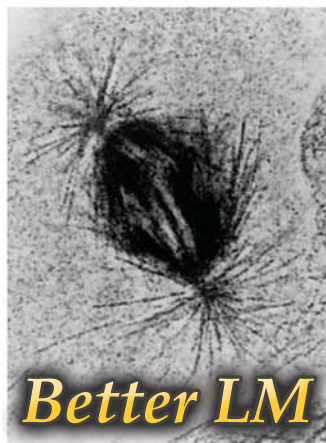
## Your choice of reactive groups:

Reactive Group	Binds To:
Maleimide	Sulfhydryls (Cysteine, Fab', IgG)
Primary Amine	NHS Esters, Aldehydes, Carboxylic Acid
Mono-Sulfo-NHS	Primary Amine
Positively Charged	
Negatively Charged	
Non-Functionalized	

**Choose  
1.4 nm Nanogold®  
or 0.8 nm Undecagold**

Custom labeling available

## Make your own targeted gold probes with almost any molecule:



Nanogold® + silver enhancement  
(R.W. Burry, Ohio State University).

- **Antibodies**
- **Proteins**
- **Peptides**
- **Oligonucleotides**
- **Lipids**
- **Toxins**
- **Enzyme substrates and inhibitors**