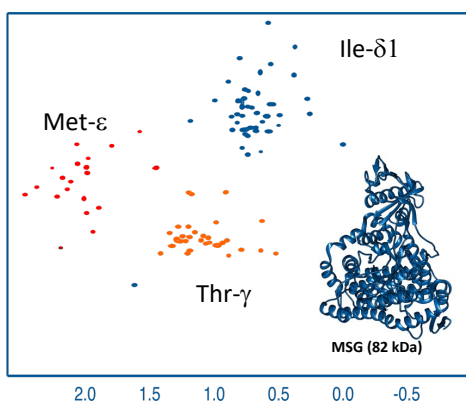
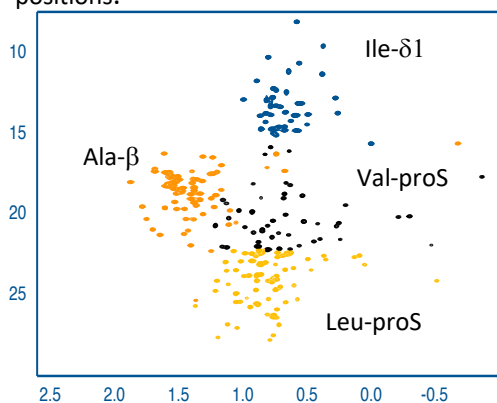




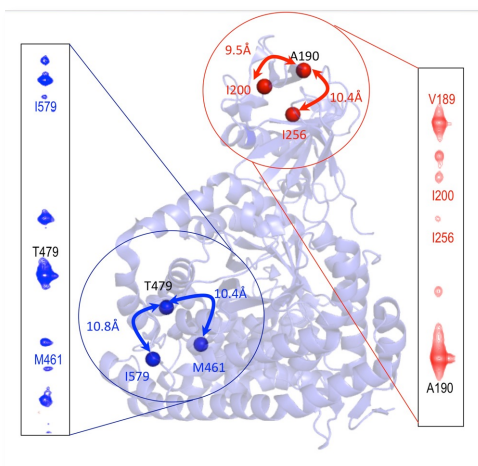
Combinatorial Labeling Kits for Long-range nOes Detection

User-friendly solutions for the simultaneous labeling of any combinations of Ala, Ile, Leu, Met, Thr & Val methyl groups.

NMR-Bio kits include the regio-specific and/or stereo-specific labeling of Ile, Leu, and Val residues. Kits are provided with precise protocols extensively tested *in-vivo* to ensure optimal incorporation of isotopes in targeted methyl groups without detectable scrambling in other positions.



2D Methyl-TROSY and 3D ^{13}C -edited NOESY spectra of MSG 82 kDa labeled using NMR-Bio kits QLAM-A β I δ 1LV proS & TLAM-I δ 1M ϵ T γ



Detection of long-range nOes between methyl probes distant by up to 10 Å in large proteins and complexes

NMR-Bio scrambling free labeling solutions are optimized for the extraction of precise and long-range nOe distance restraints between methyl probes in perdeuterated proteins. Compared to standard 2-keto acids, NMR-Bio acetolactate precursors increase sensitivity by up to a factor of 4, allowing for the detection of structurally meaningful long-range and intermolecular nOes restraints.

Recommended kits:

TLAM-A β I δ 1M ϵ /I δ 1LV proS /I δ 1M ϵ T γ

QLAM-A β I δ 1LV proS /A β M ϵ LV proS /I δ 1LV proS T γ /I δ 1M ϵ LV proS

PLAM-A β I δ 1M ϵ LV proS / I δ 1M ϵ LV proS T γ

HLAM-A β I δ 1M ϵ LV proS T γ

References:

Kerfah et al., *J Biomol NMR*. 2015, 61(1):73-82

Kerfah et al., *Curr Opin Struct Biol*. 2015, 32:113-22

NMR-Bio patented precursors are specifically deuterated and supplied as frozen user-friendly kits ready to use without requirement of any further chemical modification. All NMR-Bio kits are calibrated for addition into deuterated M9 culture medium prior to induction. NMR-Bio kits have been optimized to incorporate $^{13}\text{CH}_3$ or $^{13}\text{CHD}_2$ isotopomers in selected methyl groups of proteins, with the possibility to incorporate a linear ^{13}C spin system connecting the specifically labeled methyl



specifically labeled methyl groups to the backbone nuclei. Kits are provided with precise protocols extensively tested *in-vivo* to ensure optimal incorporation of isotopes in targeted methyl groups without detectable scrambling in other positions.

Examples of kits	$^{13}\text{CH}_3$ groups Labeled	Prices* (1 kit for 1 L. of culture)
TLAM- $\text{I}^{\delta 1}\text{LV}^{\text{proS}}$	Ile $^{\delta 1}$ Leu $^{\text{proS}}$ Val $^{\text{proS}}$	455 €
TLAM- $\text{A}^{\beta}\text{I}^{\delta 1}\text{M}^{\epsilon}$	Ala $^{\beta}$ Ile $^{\delta 1}$ Met $^{\epsilon}$	1385 €
TLAM- $\text{I}^{\delta 1}\text{M}^{\epsilon}\text{T}^{\gamma}$	Ile $^{\delta 1}$ Met $^{\epsilon}$ Thr $^{\gamma}$	1070 €
QLAM- $\text{A}^{\beta}\text{M}^{\epsilon}\text{LV}^{\text{proS}}$	Ala $^{\beta}$ Met $^{\epsilon}$ Leu $^{\text{proS}}$ Val $^{\text{proS}}$	1480 €
QLAM- $\text{I}^{\delta 1}\text{M}^{\epsilon}\text{LV}^{\text{proS}}$	Ile $^{\delta 1}$ Met $^{\epsilon}$ Leu $^{\text{proS}}$ Val $^{\text{proS}}$	865 €
QLAM- $\text{I}^{\delta 1}\text{LV}^{\text{proST}^{\gamma}}$	Ile $^{\delta 1}$ Leu/Val $^{\text{proS}}$ Thr $^{\gamma}$	1005 €
QLAM- $\text{A}^{\beta}\text{I}^{\delta 1}\text{LV}^{\text{proS}}$	Ala $^{\beta}$ Ile $^{\delta 1}$ Leu $^{\text{proS}}$ Val $^{\text{proS}}$	1070 €
PLAM- $\text{I}^{\delta 1}\text{M}^{\epsilon}\text{LV}^{\text{proST}^{\gamma}}$	Ile $^{\delta 1}$ Met $^{\epsilon}$ Leu/Val $^{\text{proS}}$ Thr $^{\gamma}$	1415 €
PLAM- $\text{A}^{\beta}\text{I}^{\delta 1}\text{M}^{\epsilon}\text{LV}^{\text{proS}}$	Ala $^{\beta}$ Ile $^{\delta 1}$ Met $^{\epsilon}$ Leu/Val $^{\text{proS}}$	1480 €
PLAM- $\text{A}^{\beta}\text{I}^{\gamma 2}\text{M}^{\epsilon}\text{LV}^{\text{proS}}$	Ala $^{\beta}$ Ile $^{\gamma 2}$ Met $^{\epsilon}$ Leu/Val $^{\text{proS}}$	1505 €
HLAM- $\text{A}^{\beta}\text{I}^{\delta 1}\text{M}^{\epsilon}\text{LV}^{\text{proST}^{\gamma}}$	Ala $^{\beta}$ Ile $^{\delta 1}$ Met $^{\epsilon}$ L/V $^{\text{proS}}$ Thr $^{\gamma}$	2030 €

For any kit including Val-proR & Leu-proR, please inquire !

The listed prices exclude shipping fees and importation tax. Discounts apply for larger quantities. For specific quote contact us at sales@nmr-bio.com