



PHILIPS

3D APT

MR Clinical application

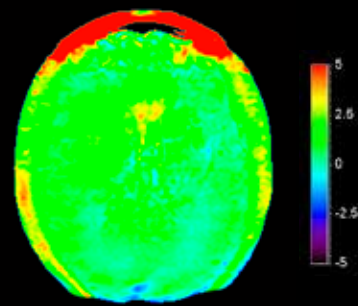
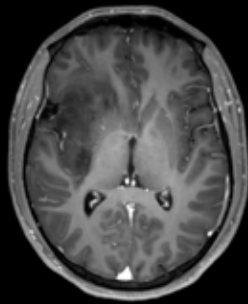
Enhanced diagnostic confidence in Neuro oncology

3D APT (Amide Proton Transfer) is a unique, contrast-free, brain MR imaging method addressing the need for more confident diagnosis in neuro oncology. Today, although MR is the gold standard in neuro oncology imaging, its accuracy in tumor grading and treatment follow up assessment can be further improved. 3D APT uses the presence of endogenous cellular proteins, to produce an MR signal that directly correlates with cell proliferation, a marker of tumoral activity. 3D APT can support trained medical professionals in differentiating low grade from high grade gliomas and, in differentiating tumor progression from treatment effect¹

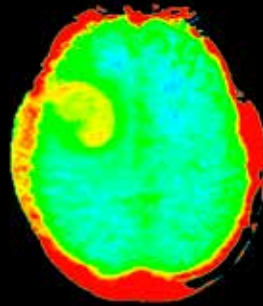
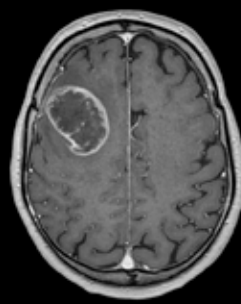
¹Zhou et al., Nat Med 9, 1085-1090 (2003), Zhou et al., Magn Reson Med 50, 1120-1126 (2003), Jones et al., Magn Reson Med 56, 585-592 (2006).

3D APT

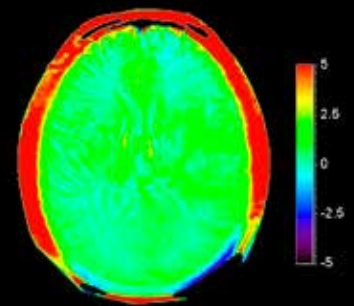
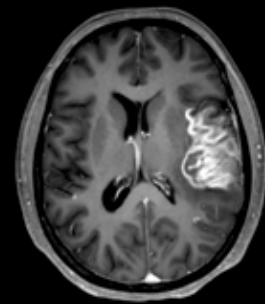
Field strength	3.0T with MultiTransmit 4D
Applications	Whole tumor coverage with a resolution of 2.0 x 2.0 x 5.0 mm
Image contrast	Uses the presence of endogenous cellular proteins, to produce an MR signal that directly correlates with cell proliferation, a marker of tumoral activity and generates APT-weighted (APT _w) images
Speed	APT _w images are calculated automatically and displayed as color maps
Image quality	Uses an easy, dedicated and standardized acquisition and visualization



Brain glioma diagnosis:
Low grade glioma
Watchful waiting
Mahajan imaging, Gurgaon, India



Brain glioma diagnosis:
High grade glioblastoma
Immediate surgery
Krankenhaus Barmherzig en Brüder,
Trier, Germany



Follow-up assessment:
Effective treatment
Mahajan imaging, Gurgaon, India