EDTA Anticoagulants
Standards in hematology

- The CLSI Standard (formerly NCCLS, US Standard) for venous blood collection published in December 2010 no longer defines K<sub>2</sub>EDTA and K<sub>3</sub>EDTA as separate EDTA options [1].

- In 2004, the European Standard EN 14820 defined the EDTA options K<sub>2</sub>EDTA, K<sub>3</sub>EDTA, and Na<sub>2</sub>EDTA as possible additives for venous blood collection from humans. These variants were also stated in the preceding standard DIN ISO 6710, and the range of concentration was determined to be 1.2 mg to 2 mg/ml blood [2, 3].

- In order to obtain the recommended anticoagulant concentration in a tube, correct filling and mixing are basic prerequisites [1].

- Due to its high osmolarity, EDTA has a basic effect on the blood cells. The analysis results measured from K<sub>2</sub>EDTA and K<sub>3</sub>EDTA tubes show equivalence and no significant deviations [4].

- K<sub>2</sub>EDTA and K<sub>3</sub>EDTA were compared in immunohematological analyses and qualified as equivalent additives for use in blood banks [5].

- The results of blood counts with leukocyte differentiation compared by Beckman Coulter revealed equivalence for both K<sub>2</sub>EDTA and K<sub>3</sub>EDTA tubes of identical concentration regarding precision, correctness, stability and diagnostic significance [4, 6, 7].

Literature:
2. Europäische Norm EN 14820 Gefäße zur einmaligen Verwendung für die venöse Blutentnahme beim Menschen, 2004
3. Deutsche Norm DIN ISO 6710 Gefäße zur einmaligen Verwendung für die venöse Blutentnahme, 1996