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## Variability of SE33 locus in 2 mediterranean populations

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The SE33 (ACTP2—human actin beta-actin-related pseudogene H-beta-Ac-psi-2) is one of the most informative STR systems for biological identification. Variability of SE33 was studied in 2 Mediterranean populations (Calabria and Malta) using the AmpFI STR NGM SElect™ PCR Amplification Kit (Applied Biosystems) and the PowerPlex ESI 17 (Promega). A total of 41 different alleles were observed in the 2 examined populations with no allele being more frequent than 10, 5%. In the Maltese population more intermediate alleles than in Calabria were found; moreover 6 out of ladder alleles were present. Allelic frequencies and statistical parameters of forensic interest (Dp, PE, RMP) were calculated using PowerStats v.1.2 software. Hardy-Weinberg equilibrium and other population parameters were calculated using Arlequin v.3.1 and TFGA v.1.3 softwares. No significant deviations from Hardy-Weinberg equilibrium were found. Allelic frequencies were compared to previously published population data and no significant differences were found. When comparing with Sicily no overall significant genetic distances were found, while comparison to other populations showed significant ones. Moreover comparison with non-European population showed no big distances between Germany and Morocco and between Hungary and Turkey. Results confirmed the usefulness of SE33 for forensic identification, which should be added to the set of STRs loci routinely studied in caseworks and in paternity cases.

### Biography

Anna Barbaro, BSc in Biological Sciences, Diploma of Postgraduate school of specialization in Applied Genetics (University of Rome "La Sapienza"), MSc in Psychological and Behavioural Techniques of Criminal Investigation, (University of Rome "La Sapienza") European PhD in Forensic Genetics, University of Santiago de Compostela (Spain). She is Director of Forensic Genetics Dept. (certified 17025) at Studio Indagini Mediche e Forensi (SIMEF) Italy. She is also a Teacher of Forensic Genetics at the 2nd level Master in Forensic Sciences, University of Rome "La Sapienza". She is a Forensic Genetics Expert of Italian Court of Justice, President of Worldwide Association of Women Forensic Experts (WAWFE). She is author of more than 100 papers and serving as an Editorial Board Member of WAWFE Journal. She is a Lecturer in national/international conferences and an expert Consultant for Italian Court of Justice and for the Defense.

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